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ANNUAL REPORT
OF THE
MEDICAL OFFICER
FOR
1931.

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Medical Officer of Health;

Chief Medical Officer for the Municipal Tuberculosis, Mental Deficiency,
Maternity and Child Welfare, &c., Schemes, and for the School Medical Service;
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CHAIRMEN OF COMMITTEES.

(31/12/1931).

Finance Committee	Alderman CLARKE, J.P.
Health Committee	Councillor D. McWILLIAM.
Education Committee	Alderman NAYLOR, J.P.
Maternity & Child Welfare Committee	Ald. Mrs. MERCER, J.P.
Mental Deficiency Committee	Councillor Mrs. GOSSAGE, J.P.
Water Committee	Councillor FLETCHER, J.P.
Public Assistance Committee	Councillor BAKER.



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PREFACE.

The period covered in this report is the calendar year, 1931. The Annual Report for 1930 was, at the request of the Ministry, very full and detailed, and included a review of the five-year period 1926—1930. It has not been considered necessary in the present report to give more than a summarised statement. Complete records of each section of the work of the department have, however, been prepared, and will be available for future reference.

During the earlier part of the year careful consideration was given to the question of the "appropriation" of the Birkenhead (Tranmere) Infirmary for the purposes of a Municipal Hospital, to be administered as an integral part of the Council's public health services under the Public Health Acts instead of under the Poor Law Acts; and a recommendation of the Public Assistance Committee was made to this effect. This came before the Town Council in September and was approved. Application was then made to the Ministry of Health for the necessary sanction, and this was in due course received. Pending the formal transfer of the administration of the hospital from the Public Assistance Committee, this is temporarily being carried on under the Poor Law Acts.

The results of the Census enumeration were issued by the Registrar-General in 1931 and showed a recorded population for Birkenhead of 147,946. This will be accepted with some reserve. It is known that the enumeration was carried out under considerable difficulties, and the available information as to the number of insured persons in the Borough, etc., would appear to justify the belief that the actual population is considerably in excess of the recorded figure. This question is discussed somewhat fully in the present report (pages 1 to 4).

The recorded birth-rate and death-rate for the Borough for 1931 are both increased as compared with the rates for 1930. The rates for the two years, however, cannot fairly be compared. The 1930 rates were, on the instructions of the Ministry of Health, based on the last available estimate of the population of the Borough issued by the Registrar-General, namely, 157,600; and may therefore have been understated.

Interesting developments in the Council's tuberculosis arrangements include the provision of facilities for artificial pneumothorax treatment at the Birkenhead Infirmary, and the supervision of in-patients in that institution suffering from tuberculosis by the Clinical Tuberculosis Officer (page 24).

The arrangements for the treatment of venereal diseases have been greatly improved by the appointment of a male orderly, and by the introduction of increased facilities for bacteriological and biochemical investigations (page 27).

The number of patients admitted to the Infectious Diseases Hospital during the year numbered 366 as against 501 in the previous year (page 38).

A new ward pavilion at the Infectious Diseases Hospital with accommodation for 30 patients was completed during the year.

The increase during 1931 of the vitally important work of the Municipal Laboratory was a source of great satisfaction to the Health Committee. Nearly 6,000 specimens were dealt with; more than double the number dealt with in the preceding year (page 43).

Progress has been made in the adaptation of Cranage Hall for the purposes of a Joint Institution for mentally defective persons, and it is hoped that in 1932 accommodation will be available for a number of Birkenhead cases (page 47).

The importance of antenatal care as a means of saving the lives of mothers in childbirth is now acknowledged by all who have given thoughtful attention to the subject. The increased usefulness of the antenatal clinics is shown by the fact that they were attended by 831 expectant mothers in 1931, as against 729 in 1930. (page 61).

In connection with the school medical service it will be noted that 8,412 elementary school children were examined during the year, an increase of over 600 as compared with 1930 (page 66). The practical utility of the school medical service of the country has been concisely indicated by a recent writer (Mr. E. E. Reynolds: "Ourselves and the Community") whose words may be quoted: "The average leaver (from school) of to-day is taller, heavier, and in better nutritive condition than was his predecessor twenty-one years ago. Any handicap due to defective vision or hearing has generally been reduced or abolished so far as medical skill can accomplish this. He is very seldom the victim of severe crippling deformity. He has learnt habits of cleanliness, and has been saved from the prolonged discomfort and loss of school attendance due to neglected inflammatory conditions of eyes, ears and skin. He has had some dental treatment, and thereby has saved some permanent teeth which would otherwise have been lost. In all these ways he leaves school substantially better equipped to fulfil the work and enjoy the pleasures of life."

SHORT STATISTICAL SUMMARY.

1931.

Area of the Borough	5.995 acres, or 9.3 square miles
Estimated population (at midsummer, 1931)	148,500
Number of persons per acre (density of population)	24.7
Number of houses in Borough at end of 1931	31,573
Number of inhabited houses at time of census, 1921	26,630
Number of families or separate occupiers at time of census, 1921	31,475
Ratcable value	£915,297
Estimated product of penny rate	£3,550
Birkenhead rates, 1931-32	11/2 in the £
Birth-rate per 1,000 of the population	18.4
Death-rate ,, ,,	13.4
Average death-rate for the last ten years	12.3
Tuberculosis death-rate per 1,000 of the population	1.21
Infantile mortality rate (per 1,000 births)	86
Average number of children in elementary schools	22,942
Number of elementary school children medically inspected during year	8,412

ADMINISTRATION.

General administrative arrangements.—The detailed arrangements made by the local authority for dealing with various branches of health work—*e.g.*, maternity and child welfare, tuberculosis, etc.—are set out in the appropriate sections of this report.

Staff.—The staff engaged on the work of the department consisted at the end of 1931 of the following:—

Medical Officer of Health and Chief Administrative Medical Officer:

D. MORLEY MATHIESON, M.A., M.D. (Edin.), Ch.B., D.P.H.

Assistant Medical Officers:

MARY A. S. DEACON, M.B.E., M.B., B.S., D.P.H.

F. G. FOSTER, M.A., M.D., Ch.B., D.P.H.

ANNA MAY WILLIAMS, M.B., Ch.B., D.P.H.

D. A. WOODESON, M.B., Ch.B., D.P.H.

J. MORRISON RITCHIE, M.A., M.B., Ch.B., D.P.H.

Dental Surgeons:

P. WILSON SMITH, L.D.S., R.F.P.S. (Glasgow).

EVELINE M. WARLOW, L.D.S. (Liverpool).

W. G. WALCH, L.D.S. (Manchester).

Veterinary Officer:

H. BURROW, M.R.C.V.S., D.V.S.M. (Edin.).

Bacteriologists and Pathologists:

J. MORRISON RITCHIE, M.A., M.B., Ch.B., D.P.H. (Assistant Medical Officer).

*Professor J. M. BEATTIE, M.A., M.D.

Analyst:

*W. H. ROBERTS, M.Sc., F.I.C.

Orthopaedic Surgeon:

*T. HARTLEY MARTIN, M.B., Ch.B.

Inspectors:

ALFRED LONGSTAFF (Chief Inspector and Inspector under the Food and Drugs Acts).

H. L. BATY (Housing Inspector), W. H. TILSTON, J. CROSHAW, G. WILLS, W. H. BATES, T. OVERSBY, A. GREENFIELD, L. PINGUEY, N. HANCOCK (District Sanitary Inspectors), F. DUGGINS (Workshops, Food and Drugs, etc., Inspector), W. S. EDWARDS (Infectious Diseases Inspector), J. JACKMAN (Common Lodging Houses Inspector), ARCHBELL CARNIE (Meat Inspector), A. W. HAYDOCK, W. CAMERON, A. T. HAUGHTON (Assistant Meat Inspectors).

Matron, Isolation Hospital:

Miss L. LIGGINS.

Matron, Thingwall Sanatorium:

Miss I. R. MILLAR.

Health Nurses:

Miss K. NIXON (Chief Health Nurse).

Mrs. L. E. FLETCHER (Health Nurse and Inspector of Midwives).

Miss A. G. ADAMS, Miss J. BEATTIE, Miss M. E. COOPER, Miss A. G. EVANS, Miss C. E. FOX, Miss M. M. GRAHAM, Miss E. HENDLEY, Miss G. W. JOHNSON, Miss M. JONES, Miss J. McDONALD, Miss G. F. PARKINSON, Miss L. PEACE, Miss E. RAMAGE, Miss E. A. SMITH, Miss A. I. STEELE, Miss L. WILSON, Mrs. C. B. WILLIAMS.

Clerks:

W. M. CAVERS (Chief Clerk). J. OWEN (Senior Clerk).
J. BENNETT, R. BAKER, J. CHALLINOR, N. WILSON, C. MARTIN, F. OWENS;
A. BARNETT, A. C. HORNE (Junior Clerks); Mrs. L. PRICE, Miss W.
CALLOWAY, Miss C. L. WESTON, Miss J. MATHIESON, Miss P. LLOYD,
Miss E. SHEPHERD, Miss D. STEPHENS, Miss I. STEWART, (Female Clerks);
D. K. ASHTON, S. BURGE, W. BROADHURST, (Office Boys).

School Teacher, Thingwall Sanatorium:

Miss A. BURY.

Public Vaccinators:

*H. LAIRD PEARSON, M.R.C.S., L.R.C.P.
*H. CRESSWELL PIERCE, M.A., M.R.C.S., L.R.C.P.
*G. J. FRENCH, M.R.C.S., L.R.C.P.

Vaccination Officers:

*S. W. SWAN.
*O. R. LOCKEY.

Other Staff:

NURSING STAFF, ISOLATION HOSPITAL—18.
DOMESTIC STAFF, ISOLATION HOSPITAL—16.
MALE STAFF, ISOLATION HOSPITAL—6.
NURSING STAFF, THINGWALL SANATORIUM—7.
DOMESTIC STAFF, THINGWALL SANATORIUM—7.
MALE STAFF, THINGWALL SANATORIUM—3.
ASSISTANTS ON MEAT INSPECTION WORK—2.
LABORATORY ASSISTANTS—2
MALE ORDERLY (VENEREAL DISEASES CLINIC) 1.
HOME TEACHER (BLIND) 1

*Not whole-time officers.

SUPERANNUATION SCHEME.

The Local Government and Other Officers' Superannuation Act, 1922, was adopted by the Birkenhead Corporation in June, 1923, and came into operation on 1st August, 1923.

The number of posts in the Corporation service designated as "established posts" for the purposes of the Act was 1,906, of which 1,711 were actually filled at the date on which the Act came into force, and 195 were additional posts. Since the commencement of the scheme 316 new posts have been created, making a total of 2,222.

Medical examinations carried out during 1931.—(a) During the past year 75 examinations of selected applicants for designated posts were carried out.

Department.	Designated Posts
Baths	1
Cleansing	3
Education	1
Gas	3
Justices' Clerks	1
Libraries	3
Markets	1
Medical Officer's	12
Police	2
Public Assistance	2
Surveyor's	25
Town Clerk's	2
Tramways	5
Treasurer's	11
Water	2
Works	1
Total examinations	75

NOTE.—In addition to the above there were 8 re-examinations during 1931.

(b) During 1928 special arrangements, as set out in my annual report for that year, were made for the medical examinations of certain tramways employees engaged in a temporary capacity.

During the year 36 employees were medically examined under these arrangements.

COST OF HEALTH SERVICES.

The following shows the estimated cost of the various sections of the Corporation's health services for the year 1931-1932. The principle on which Exchequer grants are now made was described in my annual report for 1930. (Financial assistance to relieve the blind is not regarded as a health service, and the cost of this is not included.)

	Estimated gross expenditure
	£
Maternity and child welfare	7,343
Tuberculosis	13,567
Venereal diseases	2,979
Infectious diseases hospital, disinfecting & ambulances	13,188
Meat, food and drugs inspection	2,454
General administration, port sanitary account, housing inspection, municipal laboratory, etc.	11,310
Mental deficiency	3,233
Miscellaneous (vaccination, housing schemes 1904-1909, etc.)	1,261
	<hr/> £55,335
Estimated Exchequer grants based on expenditure in " Standard Year "	13,466
	<hr/> £41,869
School medical service	8,800
	<hr/> £49,669
50% grant in respect of school medical service expenditure	4,400
	<hr/>
Approximate nett cost to Corporation of Health Services	£45,269
	<hr/>

The above approximate nett cost corresponds to a rate of 1s. 0 $\frac{3}{4}$ d. in the £.

POPULATION, BIRTHS, AND DEATHS.

POPULATION.

Population in 1931 as compared with population in 1921.—The preliminary report of the Registrar-General with regard to the 1931 Census was issued at the end of June, 1931; and the population of Birkenhead is recorded in this report as 147,946. It is known that the Census was carried out under considerable difficulties; and it is possible that some adjustment will be made in the recorded figure when the Registrar-General's final report is issued, as happened in connection with the Census of 1921.

Meanwhile, it is of interest provisionally to consider the figures as they stand at present, and to recall the estimates of population which have been received from time to time during the past ten years.

The population of Birkenhead as ascertained at the Census 1921 was 145,592. But owing to this Census being taken, not in April, according to custom, but in June, when many residents of urban areas were away on holiday, the Registrar-General found it necessary to make an adjustment on this figure. His final estimate was that the mid-year (1921) population of Birkenhead was 147,800.

The population of Birkenhead would, therefore, appear to have increased during the past decade by only 146 (147,946—147,800).

The factors affecting the population of the Borough during the intercensal period may be classified into (1) those which, operating alone, would cause an increase in the total population; and (2) those which, operating alone, would cause a decrease in the total population.

(1) *Increase.*

- (a) Births: Number of births which have occurred during the period.
- (b) Immigration: Number of persons who have come from outside to live within the Borough during the period.
- (c) Extension of boundaries: Number of persons resident in the added areas at the date of incorporation.

(2) *Decrease.*

- (d) Deaths: Number of deaths which have occurred during the period.
- (e) Emigration: Number of persons who have left the Borough during the period to reside elsewhere.

Of the above factors the extent to which three have operated is known—two definitely and one approximately:—

(a) Number of births	30,531
(c) Population of added area in 1928 (estimated)	2,754
	<hr/>
	33,285
(d) Number of deaths	18,663
	<hr/>
Balance	14,622
	<hr/>

These three factors, if they had operated alone, would therefore have produced on *increase* of population during the intercensal period of 14,622.

But from the Census figures it would appear that the population has increased, as stated above, only by 146, instead of by 14,622. The

difference (14,622 — 146 = 14,476) can be accounted for only by an excess—an unexpectedly large excess—of emigration over immigration. In other words: if the 1931 Census figure be corroborated, the number of persons who left Birkenhead during the intercensal period must have exceeded the number of persons who came to reside in Birkenhead by 14,476.

Insured Persons.—In contrast with this suggested efflux, it is interesting to observe the known facts as to the number of insured persons in the Borough. These are as follows:—

Number of insured persons in the Borough	
on the 31st March, 1921	55,731
Number of insured persons in the Borough	
on the 31st March, 1931	58,265

<i>Increase during the past ten years</i>	<u>2,534</u>
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Wards.—The subjoined table shows—

- The Registrar-General's preliminary statement as to the population of the various wards in the Borough as ascertained at the 1931 census.
- A provisional estimate of the increase or decrease in the ward population which has occurred during the intercensal period.
- The number of houses erected in the Borough by municipal and private enterprise during the intercensal period.

WARD	1931 Population (Registrar- General's Preliminary Statement).	1921-1931 * Estimate of increase or decrease of Population	1921-1931 Houses erected		
			By Muni- cipal enterprise	By private enterprise	Total
Old Wards					
Argyle.....	14,482	Dec. 2,664	35	12	47
Grange	25,940	Dec. 3,909	9	22	31
Cleveland	29,751	Inc. 1,207	609	387	996
Cloughton	8,725	Dec. 142	...	223	223
Oxton	4,500	Inc. 8	...	99	99
Clifton.....	21,532	Dec. 3,221	20	2	22
Egerton	22,682	Inc 1,658	658	380	1,038
Mersey.....	3,060	Dec. 1,142	30	8	38
Behington	6,260	Inc 2,337	405	185	590
New Wards (added in 1928)					
Prenton	2,749	Inc. 930	...	55	55
Bidston	3,265	Inc. 2,842	516	9	525

* Based on the Registrar-General's **adjusted** figures of 1921 population, except in the case of the estimates for Prenton and Bidston which are based on the **preliminary** figures for 1921.

Year-to-Year Estimates of Population.—It has been the practice of the Registrar-General to issue an estimate of the mid-year population for Local Government areas throughout the country. These estimates have been the official figures on which all statistics regarding mortality, sickness, etc., have necessarily been calculated.

The year-to-year estimates of population of the Borough as supplied by the Registrar-General during the past ten years may now be recalled:—

Year.	Estimate.
1921	147,800
1922	149,200
1923	151,400
1924	154,100
1925	155,500
1926	158,000
1927	158,500
*1928	159,200
1929	157,600
1930	152,300

* Borough extended, April, 1928: population of added areas 2,754.

It will be noted that the official estimate of population for 1930 is 152,300. In January, 1931, a circular was received from the Ministry of Health stating "that the Registrar-General, in computing his estimate of population for mid-year 1930, intends to take into account the population as ascertained by the 1931 Census; the 1930 estimate will therefore not be available before the end of June next."

At the end of June, 1931, as stated above, the preliminary report on the Census was issued, giving the 1931 population of Birkenhead as 147,946.

On 27th July, 1931 (i.e., after the Census figures became available) a memo was received from the Registrar-General stating that the estimate of population, mid-year 1930, for Birkenhead is 152,300. This may perhaps be taken as lending colour to the suggestion that some adjustment in the Census figures may be made later.

Population and Possible Further Extension of Borough Boundaries.

—Under the provisions of the Local Government Act, 1929, the Cheshire County Council has prepared a scheme which provides for the re-arrangement of Local Government areas.

It is possible that the following parishes may, in 1933, be included within the boundary of the County Borough of Birkenhead:—

Bidston.
Noctorum.
Upton.
Woodchurch.
Arrowe (part of).

The population of these parishes as ascertained at the Census 1931 (preliminary figures) was:—

Bidston	...	...	506
Noctorum	...	...	473
Upton	...	...	2,559
Woodchurch	...	...	113
Arrowe (whole parish)	...	...	91

Total 3,742

The preliminary Census figures for the area of the County Borough as it is at present, and of the areas which may possibly be added in 1933, are therefore as follows:—

Birkenhead (present area)	147,946
Outside parishes	3,742
	<hr/>
	151,688*

* Less part of Arrowe.

Mid-year Population, 1931.—The Registrar-General's estimate for the population of the Borough as at mid-year, 1931, was 148,500.

BIRTHS.

Births registered during 1931, and birth-rate.—During the year 2,737 births belonging to the Borough were *registered*. (This total includes 58 Birkenhead births registered in other areas and transferred to Birkenhead, and excludes 117 births belonging to other areas which occurred in Birkenhead and were transferred to the areas concerned. Among the latter are numerous births which occurred at the Birkenhead Maternity Hospital and the Birkenhead Infirmary.)

This corresponds to a birth-rate of 18.4 per 1,000 of the population:

Birth-rate in recent years.—The birth-rates since 1922 are as follows:—

1922	23.1 per 1,000
1923	21.4 „
1924	21.1 „
1925	20.5 „
1926	20.4 „
1927	18.2 „
1928	18.5 „
1929	18.9 „
1930	17.8 „
1931	18.4 „

Comparison of birth-rate with rates for country generally—

	Per 1,000 of population.	
	Live births	Still births
England and Wales	15.8	0.67
107 County Boroughs and Great Towns (including London)	16.0	0.67
159 Other Towns (1921 adjusted popula- tions, 20,000-50,000)	15.6	0.73
London	15.0	0.50
Birkenhead	18.4	0.70

Sex-distribution of births.—Of the 2,737 births, 1,421 were males and 1,316 females; a proportion of 1,079: 1,000.

Legitimacy.—Of the 2,737 births registered, 120 were illegitimate, a percentage of 4.3.

Registration of stillbirths.—Under Section 7 of the Births and Deaths Registration Act, 1926, the birth of every stillborn child* must be registered by the Registrar in a register of stillbirths. The Registrar-General has kindly furnished me with the numbers of still-

*i.e., born dead after the twenty-eighth week of pregnancy.

births registered during 1931 in Birkenhead. The total number was 109. In addition, there were 6 inward transfers. There were 11 stillbirths registered in Birkenhead belonging to other areas. Thus the nett number of stillbirths belonging to the Borough was 104, classified as follows:—

Legitimate—Males	47
Females	51
Illegitimate—Males	5
Females	1
	<hr/>
	104
	<hr/>

The stillbirth rate was 37 per 1,000 births.

Births notified during 1931.—During the year 2,837 births were notified in the Borough under the Notification of Births Acts, 1907 and 1915. Of these 107 were stillbirths, leaving a total of 2,730 live births. This total includes births which occurred in the Birkenhead Maternity Hospital, the Birkenhead Infirmary, and the Birkenhead General Hospital, many of which were transferable to other areas.

The following is an analysis of the above births:—

Births in Public Institutions:—

Birkenhead Maternity Hospital	354	(27 still-births)
Birkenhead Infirmary	252	(15 ,,)
Birkenhead General Hospital...	1	(— ,,)

Other births (including those in nursing homes):—

Notified by doctors	212	(8 still-births)
Notified by midwives	1909	(57 ,,)
Notified by parents	2	(— ,,)
	<hr/>	
	2730	(107 ,,)
	<hr/>	

Un-notified births. — The Registrars reported 48 cases of un-notified births, 18 of these were attended by medical practitioners, 22 by both certified midwives and doctors, 5 by the Maternity Hospital staff, 1 by the Infirmary staff, and 2 by the General Hospital staff.

Deaths.

Death-rate.—1,980 deaths occurred during the year; the total figure includes 134 deaths of Birkenhead residents which occurred outside the Borough, but excludes 214 deaths of non-residents which occurred in the area. This gives a death-rate of 13.4 per 1,000.

Deaths in recent years.—The death-rates since 1922 are as follows:—

1922	13.6 per 1,000
1923	11.0 ,,
1924	11.9 ,,
1925	12.1 ,,
1926	11.1 ,,
1927	12.6 ,,
1928	12.3 ,,
1929	13.9 ,,
1930	11.7 ,,
1931	13.4 ,,

Seasonal deaths.—The following gives the deaths for each quarter of the years 1930 and 1931:—

	No. of deaths	
	1930	1931
First quarter.....	573	647
Second quarter.....	438	480
Third quarter.....	371	347
Fourth quarter.....	470	516
Totals.....	1852	1990

Sex-distribution of deaths.—Of the total deaths 1,032 were males and 958 females, a proportion of 1,077 : 1,000.

Uncertified deaths.—In 1931, there were 2 uncertified deaths belonging to the area.

Coroner's inquests.—Coroner's inquests were held regarding 104 deaths—that is, in 5.2 per cent. of the total deaths during the year.

The Coroners' (Amendment) Act, 1926.—This Act came into force on 1st May, 1927. During the year 56 deaths (2.81 per cent. of the total deaths during the year) were registered without the Coroner holding an inquest.

Causes of death.—From the beginning of 1927 the classification of causes of death previously employed during the years 1920-1926 was abandoned, and the recognised classification contained in the detailed international list was adopted. A new international list of classification of causes of death was issued in 1931 and will be adopted for use in Birkenhead as from 1st January, 1932.

Detailed causes of death during 1931, compiled in this department, are not published in this report. Table P 1 (pages 9 to 10), prepared by the Registrar-General, shows the causes of death of Birkenhead residents, sub-classified according to sex and age.

Infantile mortality.—There were 237 deaths of infants under 1 year old. This corresponds to an infantile mortality rate of 86 per 1,000 births.

There were 11 deaths in illegitimate infants under 1 year old: giving an illegitimate mortality rate of 91 per 1,000. The causes of infant deaths, and the ages at which death occurred are shown in Table P 2 (page 11).

The corresponding rates for each year since 1922 are given below:—

1922	95
1923	62
1924	91
1925	92
1926	85
1927	95
1928	80
1929	86
1930	86
1931	86

The main causes of infant deaths during the past two years are shown below:—

	No. in 1930	No. in 1931
(a) Pneumonia (all forms)	36	56
Bronchitis	9	12
Whooping cough	10	10
Measles	2	6
(b) Diarrhœa and enteritis	42	25
Premature birth	55	57
(c) All other causes	87	71
	<hr/> 241	<hr/> 237

Deaths from tuberculosis.—Tuberculosis was responsible for 9.04 per cent. of all the deaths recorded in the Borough in 1931. The deaths from the disease were as follows:—

Deaths from tuberculosis of the lungs	144
Deaths from other forms of tuberculosis.....	36
	<hr/> 180

This gives a tuberculosis death-rate of 1.21 per 1,000 of the population.

Of the 144 deaths from respiratory tuberculosis during 1931, 136 occurred in individuals between 15 and 65 years old—that is, of a wage-earning age.

This subject is further dealt with in the “ Tuberculosis ” section of this report.

Deaths from certain epidemic diseases.—The seven “ principal epidemic diseases ” caused 119 deaths, as follows:—

Diarrhœa and enteritis (under 2 years)	32
Whooping cough	28
Measles	34
Scarlet fever	0
Diphtheria (including membranous croup)	24
Fever (enteric, typhus, and simple continued)	1
Smallpox	0

This corresponds to a death-rate from all these diseases of 0.8 per 1,000 of the population.

Deaths from other notifiable infectious diseases.—Pneumonia caused, in its various forms, 183 deaths; puerperal fever caused 4; encephalitis lethargica caused 2; erysipelas caused 4.

Deaths from cancer.—The following table shows the cancer death-rate in Birkenhead as compared with the country generally:—

Year	BIRKENHEAD			ENGLAND AND WALES	
	Population	Number of deaths from cancer in Birkenhead	Rate per 100,000 population	Rate per 100,000 population	
1901	111,377	91	81	}	87
1902	113,231	66	58		
1903	115,117	78	68		
1904	117,034	83	70		
1905	118,982	94	79		
1906	120,964	101	83	}	94
1907	122,978	90	73		
1908	125,026	101	80		
1909	127,108	91	71		
1910	129,227	115	89		
1911	131,377	114	86	}	105
1912	135,521	126	92		
1913	135,740	107	70		
1914	137,906	114	82		
1915	140,291	121	85		
1916	142,622	140	98	}	118
1917	144,993	144	99		
1918	147,403	154	104		
1919	149,853	181	121		
1920	152,345	186	122		
1921	147,800	186	125		121
1922	149,200	172	115		123
1923	151,400	179	118		127
1924	154,100	179	116		130
1925	155,500	199	129		133
1926	158,000	204	129		136
1927	158,500	206	130		137
1928	159,200	229	145		142
1929	157,600	214	136		143
1930	157,600	228	144		145
1931	148,500	206	138		148

Comparison of Birkenhead death-rates with those for country generally.—In Table P 3 (page 12) Birkenhead rates are shown together with those for the country generally. The latter are provisional figures kindly supplied by the Registrar-General. Non-civilians are included in the figures for England and Wales, but not for other areas.

TABLE P 1.

Deaths: causes, sex, and ages (as compiled by the Registrar General).

Causes of death	Sex	All ages	Ages										
			0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—
All causes	Male	1028	145	37	27	25	40	54	66	122	165	196	151
	Female	963	91	30	31	37	45	56	58	73	138	187	217
1 Typhoid and paratyphoid fevers	Male	1	...	...	...	...	1	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
2 Measles	Male	23	5	12	6	...	...	...	...	...	...	...	...
	Female	13	1	6	4	2	...	...	...	...	...	...	...
3 Scarlet fever	Male	...	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
4 Whooping cough	Male	11	8	3	...	...	...	...	...	...	...	...	...
	Female	17	2	8	7	...	...	...	...	...	...	...	...
5 Diphtheria	Male	9	...	1	1	5	2	...	...	...	...	...	...
	Female	14	...	2	2	11	1	...	...	...	...	...	...
6 Influenza	Male	22	1	...	1	1	...	4	4	2	4	3	2
	Female	30	...	...	1	1	...	2	6	4	8	5	3
7 Encephalitis lethargica	Male	3	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
8 Cerebro-spinal fever	Male	1	...	...	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
9 Tuberculosis of respiratory system	Male	82	...	...	...	1	11	15	18	22	10	4	1
	Female	61	...	...	...	1	17	23	10	7	2	1	...
10 Other tuberculous diseases	Male	17	3	4	5	2	1	1	...	1	2	1	...
	Female	19	3	...	7	1	4	1	...	1	1	...	...
11 Syphilis	Male	5	1	...	...	...	1	...	1	...	1	...	...
	Female	3	2	...	...	...	...	...	...	2	1	...	...
12 General paralysis of the insane, tabes dorsalis	Male	5	...	...	...	...	...	1	2	2	...	...	...
	Female	1	...	...	...	...	...	...	...	1	...	...	...
13 Cancer, malignant disease	Male	99	...	...	...	...	2	3	5	11	29	39	10
	Female	110	...	...	1	...	2	1	10	16	33	32	15
14 Diabetes	Male	4	...	...	...	1	...	...	...	1	2	...	...
	Female	7	...	...	...	...	1	1	...	...	1	1	3
15 Cerebral hemorrhage, etc.	Male	48	...	...	...	...	...	...	...	6	12	16	14
	Female	42	...	...	...	...	...	1	...	3	8	12	17
16 Heart disease ..	Male	197	...	...	...	1	2	6	9	21	34	66	58
	Female	172	...	...	...	4	5	2	5	11	28	70	47
17 Aneurysm	Male	4	...	...	...	...	...	...	1	...	3	...	...
	Female	...	...	...	...	...	...	...	...	...	...	...	...
18 Other circulatory diseases ..	Male	40	...	...	...	...	...	...	1	7	...	10	13
	Female	45	...	...	...	...	...	...	1	2	5	11	26

TABLE P 2.

Infant deaths: causes and ages.

Causes of death	Under 1 week	1-2 weeks	2-3 weeks	3-4 weeks	Total under 4 weeks	Over 4 weeks & under 3 months	3-6 months	6-9 months	9-12 months	Total under 1 year
All causes.....	57	18	12	3	90	38	44	30	35	237
Smallpox .....	..	..	..	..	..	..	..	..	..	..
Chickenpox .....	..	..	..	..	..	..	..	..	..	..
Measles .....	..	..	..	..	..	..	1	..	5	6
Scarlet fever .....	..	..	..	..	..	..	..	..	..	..
Whooping cough.....	..	..	..	..	..	1	2	4	3	10
Diphtheria .....	..	..	..	..	..	..	..	..	..	..
Influenza .....	..	..	..	..	..	..	1	1	..	2
Tuberculosis of central nervous system	1	..	..	..	1	..	1	1	2	5
Tuberculosis of intestines and peritoneum .....	..	..	..	1	1	..	..	..	..	1
Meningitis (not tuberculous) .....	..	..	..	..	..	..	1	..	1	2
Convulsions	2	1	2	..	5	1	..	1	..	7
Bronchitis (all forms).....	..	1	..	..	1	3	3	3	2	12
Pneumonia (all forms) .....	..	1	..	1	2	10	14	16	14	56
Diarrhœa and enteritis .....	..	..	..	..	..	4	15	2	4	25
Gastritis .....	..	..	..	..	..	..	..	..	..	..
Syphilis .....	..	1	..	..	1	..	1	..	..	2
Rickets .....	..	..	..	..	..	..	..	..	..	..
Injury at birth	2	..	..	..	2	..	..	..	..	2
Atelectasis	12	1	..	..	13	1	..	..	..	14
Congenital malformations.....	5	2	1	..	8	3	1	2	1	15
Premature birth	30	10	6	..	46	9	..	..	..	55
Atrophy, debility and marasmus .....	..	1	..	1	2	4	1	..	..	7
Other causes	5	..	3	..	8	2	3	..	3	16
Totals.. ..	57	18	12	3	90	38	44	30	35	237

Nett births in the year—

Legitimate 2617

Illegitimate 120

Nett deaths in the year—

Legitimate infants 226

Illegitimate infants ... 11

TABLE P 3.
Death-rates: comparison with rest of country.

	Annual death rate per 1000 civilian population							Rate per 1000 births		Percentage of total deaths					
	All causes	Enteric fever	Smallpox	Measles	Scarlet fever	Whooping cough	Diphtheria	Influenza	Violence	Diarrhoea and enteritis (under 2 years)	Total deaths under 1 year	Certified by Registered Medical Practitioners	Inquest cases	Certified by Coroner after P.M.	Uncertified causes of death
England and Wales	12.3	0.01	0.00	0.08	0.01	0.06	0.07	0.36	0.54	6.0	66	91.18	6.17	1.70	0.95
107 County Boroughs and Great Towns including London (census population exceeding 50,000)	12.3	0.00	0.00	0.10	0.01	0.07	0.08	0.33	0.48	8.4	71	91.43	5.84	2.24	0.49
159 Smaller Towns (1921 adjusted populations 20,000 to 50,000)	11.3	0.00	0.00	0.07	0.01	0.05	0.05	0.36	0.43	4.0	62	92.17	5.49	1.25	1.09
London	12.4	0.01	0.00	0.03	0.02	0.07	0.06	0.26	0.57	9.7	65	89.52	6.23	4.24	0.01
Birkenhead	13.4	0.00	—	0.23	—	0.19	0.16	0.32	0.38	11.6	86	91.82	5.27	2.81	0.10

WATER SUPPLY, FOOD, AND DRUGS.

At the end of the year the staff engaged on meat inspection consisted, in addition to the Veterinary Officer (Mr. Harold Burrow), of one meat inspector, three assistant inspectors, and two detention officers.

The Chief Sanitary Inspector, Mr. Alfred Longstaff, was responsible throughout the year for the taking of all samples of milk and other food stuffs, and of drugs, for chemical and bacteriological examination. A special Food and Drugs Inspector also devotes the greater part of his time to this work.

The chemical analysis of samples has been carried out, under a temporary arrangement, by Mr. W. H. Roberts, M.Sc., F.I.C., City Analyst, Liverpool.

The bacteriological examination of samples has been dealt with in the Municipal Laboratory.

THE WATER SUPPLY.

With the exception of Prenton Ward, all the Borough is supplied with water from the Corporation Waterworks at Alwen. The supply for Prenton comes from the West Cheshire Water Board.

The consumption of water in Birkenhead from the Alwen supply during the year ending 31st March, 1932, was 1,567,673,000 gallons.

Bacteriological examinations.—The bacteriological examination of the Alwen water supply is carried out in the laboratory in the Department. (The procedure followed was indicated in my annual report for 1923.)

During the past year, bacteriological examinations have been made in connection with:—

52 samples of tap water in Birkenhead.

11 samples of water from the Alwen Reservoir, before filtration.

22 samples of water at Alwen, after passing through the filtration apparatus.

The latter tests provide a very useful and sensitive check on the efficacy of the filtration process.

MILK SUPPLY.

The question of the milk supply was discussed fully in my annual report for 1927. During the past year still further improvement has been noticeable in the cleanliness of the milk sent into the Borough—a result which is due to the vigorous steps taken by the Health Authority.

Dairy farms.—Milk is supplied to the Borough chiefly from farms in Cheshire, Shropshire, Denbighshire and Flintshire.

(a) *Farms, etc., outside the Borough.*—During the year 375 samples of milk from outside farms were taken by the Veterinary Officer. Of these 38 (10.1 per cent.) were found to contain tubercle bacilli. Thirty-one visits were paid by the Veterinary Officer, under the provisions of the Milk and Dairies (Consolidation) Act, 1915, to milk producers' farms outside the Borough in connection with milk samples which proved, upon examination at the Municipal Laboratory, to be tuberculous. These visits were made in company with the County Veterinary Inspectors of the districts concerned, and 1,141 cows were examined. Samples from all cows suspected to be affected with tuberculosis were taken for examination by the County

Authorities. Thirty-five cows on the farms inspected were found to be giving tuberculous milk and were slaughtered.

(b) *Farms, etc., within the Borough.*—There were at the end of the year 16 cowsheds within the boundaries of the Borough, 12 of these being in the extended area. •

During the year, under the provisions of Part IV. of the Milk and Dairies Order, 1926 (an Order made by the Minister of Health) quarterly examinations were made by the Veterinary Officer of all dairy cows within the Borough. At the end of the year there were 16 cowsheds at farms within the Borough with a combined total of 280 dairy cows supplying milk. 75 visits in all were paid to these farms, and 1,347 inspections of cows were made. 15 samples of milk were taken from cows showing induration of the udder, and these were examined microscopically for the presence of tubercle bacilli. In four cases the result was positive and the affected cows were immediately slaughtered. Ten cows were discovered to be suffering from affections detrimental to the milk supply, and the use of their milk for human consumption was prohibited.

Milkshops and the retail sale of milk.—There are 151 registered milkshops in Birkenhead. In addition, the following are registered for retailing milk within the Borough—83 farmers resident outside Birkenhead. 2 “purveyors” of milk, and the owners of the 16 cowsheds within the Borough referred to in the preceding paragraph.

Applications for registration.—During the year 10 applications for registration—Milk and Dairies (Amendment) Act, 1922—have been received from persons desiring to retail milk within the Borough. Seven of these have been placed on the register. In the remaining three cases registration was refused.

Removals from register.—In two cases purveyors were persuaded to discontinue selling milk, and their names were removed from the register without the necessity of taking formal action.

Sale of “Graded” milk.—Under the Milk (Special Designations) Order, 1923, the following licences were granted:—

6 licences to persons other than producers to retail *certified milk* within the Borough.

4 licences to bottle and sell *Grade A (Tuberculin Tested) milk*.

4 licences to sell *Grade A (Tuberculin Tested) milk*.

9 licences to bottle and sell *Grade A milk*.

6 licences to sell *Grade A milk*.

1 licence to sell *Pasteurised milk*.

1 licence to produce *Grade A milk*.

In connection with the licence granted to the producer of *Grade A milk* within the Borough, the Veterinary Officer visited the premises quarterly during the year, 248 dairy cows being examined. Among these 7 cows were detected to be suffering from conditions requiring their exclusion from the herd, and were removed immediately.

The chemical and physical examination of milk.—During the year 230 samples of milk were taken for chemical analysis.

The bacteriological examination of milk.—158 samples of milk were examined in the Municipal Laboratory during the year, 135 of these samples were satisfactory and 23 were not satisfactory.

Suitable action was taken with regard to the unsatisfactory samples.

OTHER FOODS : DRUGS

Abattoirs in Birkenhead.—Particulars regarding these — the abattoir within the Woodside Lairages and the Corporation abattoir at Tranmere—were given in my annual report for 1920.

Meat inspection at Lairages and Abattoir.—The Veterinary Officer reports that during the year there were killed 53,765 oxen, 1,060 calves, 5,106 pigs, 12,431 sheep, 4 goats, a total of 72,366.

All animals slaughtered at the abattoir at Tranmere, at Wallasey Stage, and at Nos. 4 & 5 Sheds, Wallasey; and a considerable proportion of the animals slaughtered at Woodside Lairages were examined by the meat inspection staff.

The following statement is a summary of the meat, etc., condemned by the meat inspection staff at the lairages and abattoir during the year and surrendered by the owners for destruction. Formal seizure was necessary in one case and a magistrate's order for the destruction of the meat was obtained:—

The total number of carcasses seized was 508, weighing 151,728 lbs.

155 of these were seized on account of tuberculosis, their aggregate weight being 77,839 lbs. The remainder was seized on account of transit injuries, dropsy, sepsis, etc.

The number of parts of carcasses seized was 857, weighing 35,883 lbs.

Of these 678 were seized on account of tuberculosis; their aggregate weight being 30,083 lbs.

The total weight of offal seized was 299,971 lbs.

Inspection of meat and other foods at shops.—During the year 4,967 visits have been paid by the Inspectors to premises within the Borough. The total amount of foodstuffs condemned at the shops was 2,495 lbs.

Total weight of condemned meat and other foods during 1931.—The total weight of beef, mutton, pork and veal condemned at the slaughter-houses at the lairages and abattoir was 487,588 lbs. This, together with 2,495 lbs. of meat and food condemned at shops, gives a total of 490,083 lbs. (218 tons, 15 cwts., 2 qrs., 27lbs.) of food condemned within the Borough during the year.

Examination of imported sheep for caseous lymphadenitis.—During the year 5,173 imported sheep carcasses have been received into the Borough on licence from the Port of London Sanitary Authority. A 10% proportion of these were examined for caseous lymphadenitis, and 4 carcasses were found affected and were condemned.

Export of animal casings.—Certificates of freedom from disease were given in respect to the following consignments of animal casings prepared from animals slaughtered within the Borough:—

To U.S.A.—2 tierces of beef casings—10 cwts.

To Holland.—50 tierces of beef casings—288½ cwts.

To France.—6 tierces of beef casings—33 cwts.

Sale of Food Order, 1921, Merchandise Marks Act, 1926, and Agricultural Produce (Grading and Marking) Act, 1928.—Attention was given to these Acts and Orders in so far as they relate to the sale of foodstuffs.

Prosecutions.—During the year no prosecutions in connection with diseased or unsound food were necessary.

Samples taken under Food and Drugs Acts.—During the year 493 samples were taken. Of these 234 were formal and 259 informal. 230 were samples of milk.

The articles sampled are set out in the following table:—

TABLE F 1.
Samples taken during 1931.

Article	No. samples taken formally	No. samples taken informally	Article	No. samples taken formally	No. samples taken informally
Milk	230	...	Glace cherries.....	...	1
Cream and timed cream	3	17	Currants .....	...	1
Butter	17	Raisins .....	...	1
Cheese	13	Sultanas .....	...	1
Margarine	14	Ginger wine essence .....	...	1
Lard	13	Lemon squash & orange		
Dripping	6	squash .....	...	2
Tea	6	Pickled onions .....	...	3
Coffee	7	Meat pastes.....	...	7
Cocoa	6	Fish pastes .....	...	3
Coffee extract.....	...	2	Salmon creme .....	...	1
Malted cocoa mixture	1	Olive oil .....	...	7
Condensed milk.....	...	9	Tincture of iodine .....	...	4
Jam	1	6	Quinine tonic.....	...	4
Marmalade	1	Medicinal paraffin .....	...	1
Lemon cheese	3	Peroxide of hydrogen .....	...	1
Honey	4	Castor oil .....	...	3
Confectionery	3	Cod liver oil .....	...	3
Sugar	4	Epsom salts.....	...	4
Sausage	9	Extract of malt & cod		
Minced beef.....	...	3	liver oil .....	...	2
Tinned fruits	11	Glauber salts .....	...	2
Tinned fish (brisling)	1	Liquorice powder .....	...	2
Tinned beans	1	Glycerine .....	...	4
Oatmeal.....	...	3	Glycerine, lemon and		
Cornflour	1	honey .....	...	1
Rice	1	Oil of almonds.....	...	2
Sauce	5	Eucalyptus oil.....	...	3
Pepper	7	Cream of tartar .....	...	1
Self-raising flour.....	...	2	Paregoric .....	...	1
Malt vinegar	1	Boracic ointment .....	...	2
Ground almonds	3	Sulphur ointment .....	...	1
Ground ginger.....	...	2	Vaseline .....	...	1
Ground cinnamon	1			
Dessicated cocoanut	1			
Zinc ointment.....	...	1			
Candied peel	3			
Marrow & ginger	1			
Minced meat	2			
Dried figs	1			

Samples analysed formally 234

Samples analysed informally 259

Total samples analysed during the year 493

Of the total number of samples analysed

14 samples of milk.

3 samples of cream.

3 samples of jam.

1 sample of malt extract and cod liver oil.

1 sample of tinned loganberries.

1 sample of tinned beans.

1 sample of ground cinnamon.

were reported adulterated, and proceedings were taken in respect of:—

5 samples of milk

1 sample of cream.

With reference to the remaining samples reported adulterated it was decided, after consideration of the circumstances, that it was inadvisable to institute proceedings.

Particulars of the defects found in those samples with regard to which proceedings were taken, and the result of the proceedings, are set out in Table F 2.

TABLE F 2.

Samples with reference to which proceedings were taken.

Nature of adulteration and result of proceedings.

Date	Article	No. of sample	Adulteration	Fine inflicted
Mar. 31	Milk	90	19% added water and 5% deficient in fat...	10/- and 10/6 costs
Apl. 15	Milk	136	5% deficient in fat	10/- and 10/6 costs
May 8	Cream	185	1,300 parts boric acid per million.....	£2 and £1-11-6 costs
June 17	Milk	254	13% deficient in fat	Dismissed
Oct. 9	Milk	376	7% added water	Dismissed on pay- ment of 14/6 costs
Dec. 30	Milk	489	12% added water.....	10/6 and 10/6 costs

TUBERCULOSIS.

ADMINISTRATIVE ARRANGEMENTS.

The arrangements made by the Birkenhead Corporation for dealing with tuberculosis in the area include:—

(a) The provision of a dispensary or clinic, opened in 1913. (This clinic is used on one half-day each week in connection with cases from the area of the administrative county of Chester).

(b) The provision of garden shelters for suitable cases at a small rent.

(c) The retention since August, 1914, of twelve beds at Leasowe Hospital for cases of surgical tuberculosis in children.

(d) A joint arrangement with the Cheshire County Council, and the Councils of the County Boroughs of Wallasey, Chester, Stockport and Stoke-on-Trent, for the provision of a sanatorium at Burntwood.

(e) The provision of a residential institution at Thingwall, Birkenhead.

(f) The treatment of tuberculous out-patients by artificial pneumothorax at the Birkenhead Infirmary.

(g) The visitation of tuberculous in-patients at the Birkenhead Infirmary by the Clinical Tuberculosis Officer.

The Corkhill Fund.—Under the will of the late Mr. John Lloyd Corkhill, of Oxtou, a sum of money was provided for the assistance of persons suffering from consumption. By arrangement with the trustees, persons applying for help from the charity are passed through the municipal clinic for classification; and the trustees have been largely guided by the recommendation of the medical staff of the clinic.

PREVALENCE OF, AND MORTALITY FROM, TUBERCULOSIS.

Notifications.—The total number of primary cases of tuberculosis notified during 1931 was 350—239 respiratory and 111 non-respiratory. An analysis of these cases with reference to age and sex will be found in Table T 1 (page 24).

Mortality.—The total number of deaths, certified as due to tuberculosis, of patients who had previously been notified as suffering from the disease was 158—131 respiratory and 27 non-respiratory.

The total number of deaths, certified as due to tuberculosis, of patients who had *not* previously been notified as suffering from tuberculosis was 22—13 respiratory and 9 non-respiratory.

Adding these together, the total number of deaths certified as due to tuberculosis was as follows:—

Respiratory	144
Non-respiratory	36
	<hr/>
	180

An analysis of the tuberculosis mortality for the past ten years will be found in Table 2 (page 25).

An analysis of the tuberculosis mortality during 1931 with reference to age and sex will be found in Table 3 (page 25).

Number of known cases.—During 1931 a drastic revision of the notification register was carried out with a view to determining with the greatest possible accuracy the number of patients who were suffering from tuberculosis and were resident in the Borough.

Cases of non-respiratory or surgical tuberculosis may not be removed from the register until complete arrest of the disease has been maintained for three years; and cases of respiratory tuberculosis may not be removed from the register until at least five complete calendar years have elapsed since the date of notification and three complete calendar years after the disappearance of all symptoms.

As result of this revision the ascertained incidence of tuberculosis as at the end of 1931 is as shown below:—

	Insured	Not Insured	Total
Respiratory .....Male	310	99	409
Female ...	109	264	373
Non-respiratory Male	62	161	223
Female ...	56	196	252
Total...Male	372	260	632
Female ...	165	460	625
Total	537	720	1257

CASES DEALT WITH THROUGH THE TUBERCULOSIS CLINIC.

Attendances of patients at the clinic.—During the year 2,183 examinations were made. Of these 785 were *first* examinations (*i.e.*, examinations of patients who had not been seen previously at the clinic).* In addition to attendances made for the purpose of medical examination, 1,097 other attendances were made by patients for weighing, interview, advice or certification, and by patients' relatives in connection with questions arising as to treatment, removal, home conditions, etc.

* This number includes contacts.

Examination of patients who were notified for the first time during 1931.—Of the 350 new patients notified in 1931, 176 were examined at the clinic during the year. The remaining 174 were not referred to, did not attend at, or were previously examined at, the clinic.

Classification of new cases.—The 785 new patients who attended during the year were classified as follows:—

		*Adults	Children	Total
Classed as suffering from respiratory tuberculosis	Males ...	89	6	95
	Females	75	6	81
Classed as suffering from other forms of tuberculosis	Males ...	7	23	30
	Females	10	27	37
Classed as non-tuberculous	Males ...	93	157	250
	Females	127	135	262
Classed as "suspect"	Males ...	10	7	17
	Females	8	5	13
Total...	Males	199	193	392
	Females	220	173	393
Total ...		419	366	785

* All patients of fifteen years and upwards are classed as adults.

Examination of contacts.—211 persons who had been in close contact with known cases of tuberculosis were examined either at the clinic or at their homes, and were classified as follows:—

		*Adults	Children	Total
Classed as suffering from respiratory tuberculosis	Males ...	—	1	1
	Females	2	1	3
Classed as suffering from other forms of tuberculosis	Males ...	—	—	—
	Females	—	2	2
Classed as non-tuberculous.....	Males ...	16	73	89
	Females	36	76	112
Classed as "suspect"	Males ...	2	2	4
	Females	—	—	—
Total...	Males ...	18	76	94
	Females	38	79	117
Total.....		56	155	211

* All patients of fifteen years and upwards are classed as adults.

HOME VISITING; DISINFECTION; COMPULSORY TREATMENT; ETC.

During the year the health nurses paid 382 first visits and 3,114 re-visits to the homes of patients.

The number of houses disinfected after death or removal of patients was 138.

Spitting flasks are provided free of charge to patients.

The compulsory removal to hospital for a period not exceeding 3 months of a person suffering from pulmonary tuberculosis in an infectious state and whose condition is a danger to other members of the house is provided for by the Public Health Act, 1925 (Sec. 62).

The power to prevent a person suffering from tuberculosis of the respiratory tract from entering upon any employment or occupation in connection with a dairy which would involve the milking of cows, the treatment of milk, or the handling of vessels used for containing milk, is given to a Local Authority under the Public Health (Prevention of Tuberculosis) Regulations, 1925.

It was not found necessary during the year to make use of the above powers in Birkenhead.

THINGWALL SANATORIUM.

Patients dealt with.—At the commencement of the year there were 32 patients in the Sanatorium. There were 73 admissions during the year. These were classified as follows:—

Tuberculosis of bones and joints	8
" abdominal glands or peritoneum..	9
" cervical and other glands	14
" eyes	1
" lungs (all non-infectious cases) ...	3
For observation and diagnosis	38

69 patients were discharged or transferred to other institutions ; no deaths occurred. The condition on discharge may be summarised as follows:—

Disease quiescent	23
Improved	22
No material improvement	5
Found after observation not to be suffering from tuberculosis	19

There were 36 patients under treatment at the end of the year.

Treatment.—No changes in treatment have been made during the year. The results obtained by the broad hygienic measures at present in vogue have called for no modification.

The only point worthy of notice is that more use of the institution is now being made for the observation of "doubtful" cases of non-pulmonary and latent tuberculosis. It is sometimes very difficult to judge from periodic examinations at the Clinic whether a delicate child is, or is not, suffering from tuberculosis, but when the child can be admitted to a hospital where the temperature, pulse and weight charts can be kept and the patient carefully watched, a diagnosis can usually be established within a month. It has been found that the histories of patients, as obtained from parents or guardians, are often very misleading and that the symptoms are frequently—from concern rather than deliberate intent—greatly exaggerated. But whereas an anxious mother may unconsciously magnify the symptoms of the disease in her child, the temperature and pulse charts cannot be falsified; and it is in cases such as these that a short stay at Thingwall for observation purposes is of great value.

It will be noted that three cases of "pulmonary" disease were treated during the year. These were cases of the pleuro-pulmonary type, i.e. suffering from pleurisy with effusion, where the disease was localised to the outside of the lung, and where there was no question of the patient being infectious to others.

Average duration of stay. For the patients discharged during the year the average length of stay in the sanatorium was 26 weeks.

CHESHIRE JOINT SANATORIUM.

The Cheshire Joint Sanatorium was opened on the 6th November, 1923, for 50% of the approved bed accommodation.

The approved accommodation for Birkenhead cases (32 beds) is now available.

Patients dealt with.—At the beginning of the year 31 Birkenhead patients were under treatment. During the year 51 Birkenhead patients were admitted, 48 were discharged, and two died. 32 patients remained under treatment at the end of the year.

	Men	Women	Children (under 15)	Total
In Sanatorium January 1, 1931	17	14	—	31
Admitted during year	28	23	—	51
Discharged or left Sanatorium during year	26	22	—	48
Died in Sanatorium	1	1	—	2
In Sanatorium December 31, 1931 ...	18	14	—	32

The following table shows the classification, length of stay, and result of treatment of the cases discharged during the year:—

Classification prior to entering Sanatorium	Condition on discharge from Sanatorium	DURATION OF STAY IN SANATORIUM								Totals	
		Under 3 months		3 to 6 months		6 to 12 months		Over 1 year			
		M	F	M	F	M	F	M	F	M	F
T. B. minus	Quiescent	—	1	—	—	—	—	—	—	—	1
	Improved	—	—	1	—	2	3	—	1	3	4
	No material improvement	1	—	—	—	—	—	—	—	1	—
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group I.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	1	—	—	1	1	—	2	1
	No material improvement	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	—	—	—	—	—	—
T. B. plus Group II.	Quiescent	—	1	—	1	—	—	—	—	—	2
	Improved	5	1	1	3	5	7	2	—	13	11
	No material improvement	—	1	2	—	2	1	2	1	6	3
	Died	—	—	—	1	—	—	—	—	—	1
T. B. plus Group III.	Quiescent	—	—	—	—	—	—	—	—	—	—
	Improved	—	—	—	—	—	—	—	1	1	—
	No material improvement	—	—	—	—	—	—	—	—	—	—
	Died	—	—	—	—	1	—	—	—	1	—

*Explanation of group nomenclature: Patients suffering from pulmonary tuberculosis are divided into groups which may briefly be defined as follows:—

T. B. minus=cases in which tubercle bacilli have never been demonstrated in the sputum, etc.

T. B. plus, Group I=cases in which tubercle bacilli have at any time been demonstrated with slight constitutional disturbance and where the physical signs are of very limited extent.

T. B. plus, Group II=all cases which are neither slight nor advanced and which cannot be placed in Group I. or III.

T. B. plus, Group III=cases with profound systemic disturbance or constitutional deterioration, marked impairment of function, either local or general, and with little or no prospect of recovery.

It should be noted that a patient originally in Group T. B. minus must be transferred to Group T. B. plus at any stage in the course of treatment if and when tubercle bacilli are found, while on the other hand a patient who is once placed in Group T. B. plus can never be transferred to Group T. B. minus.

A full explanation of the Groups will be found in Memorandum 37 T issued by the Ministry of Health in September, 1925.

LEASOWE HOSPITAL.

The twelve beds reserved by the Corporation at Leasowe Hospital for cases of *surgical tuberculosis* among Birkenhead residents have been in occupation throughout the year.

There were 12 cases in hospital at the beginning of the year; 2 new cases have been admitted during the year, and 2 have been discharged or died; leaving 12 patients in hospital at the end of December.

The localisation of the disease in the 14 patients under treatment during the year was as follows:—

Tuberculosis of spine	5
" hip	5
" knee	2
" ankle	1
" intestines	1

14

The 2 cases discharged or died were as follows:—

Tuberculosis of hip	1	quiescent
„ knee	1	no material improvement
	2	

BIRKENHEAD INFIRMARY.

(a) During the year a new development was introduced—the treatment of tuberculous out-patients by artificial pneumothorax at the Birkenhead Infirmary.

By arrangement with the Public Assistance Committee a room has been placed at the disposal of the Clinical Tuberculosis Officer for this purpose one morning each week. He has the assistance of the X-rays Sister and the services of a nurse.

Formerly, patients who had been undergoing this form of treatment as in-patients at the Cheshire Joint Sanatorium and had returned to Birkenhead, were required to attend at the Sanatorium for continuation treatment (refills, etc.) at intervals varying from a fortnight to six weeks. This entailed a tedious journey with waits at Chester and Crewe and some eight to nine hours lapse before the departure of patients from, and return to, Birkenhead. A considerable outlay in fares was also involved.

Under the new arrangement, Dr. Foster, as stated above, visits the Birkenhead Infirmary once a week and provides the necessary continuation treatment for these cases, attending as out-patients.

The procedure in force is as follows:—When the patients arrive at the Infirmary, they are screened in the X-rays room, and then go to the artificial pneumothorax room where a refill is given if necessary. They then rest in a retiring room, are provided with a cup of tea, and return to their homes at their leisure.

So far these arrangements have worked satisfactorily and the patients show great appreciation of the fact that they now do not need to make the long journey that was necessary previously.

Up to the end of the year 12 patients had received treatment. These patients made 57 visits, and on most occasions refills were given.

(b) Another development in the direction of better co-ordination which was effected during the year was that by which arrangements were made for Dr. Foster to visit the wards in the Birkenhead Infirmary allotted to tuberculous in-patients and to advise in a consultant capacity regarding the treatment and general care of these patients.

TABLE T 1.

New cases notified for first time during the year.

Age periods.....	PRIMARY NOTIFICATIONS											Total
	C-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and up	
Respiratory—Males	—	1	5	4	10	17	28	23	28	14	2	132
Females	—	—	2	6	16	18	32	17	12	3	1	107
Non-respiratory—Males	1	14	16	8	3	3	3	1	2	3	—	54
Females	2	13	16	8	6	6	3	1	1	—	1	57
Totals.....	3	28	39	26	35	44	66	42	43	20	4	350

TABLE T 2.

Deaths from tuberculosis during the past ten years.

Year	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931
Deaths from tuberculosis of the lungs—										
Number	141	109	136	123	122	155	150	164	141	144
Rate per 1000	0.94	0.72	0.88	0.79	0.77	0.98	0.95	1.04	0.89	0.97
A Males—										
Number	77	67	75	61	68	97	82	93	83	83
Rate	0.51	0.44	0.48	0.39	0.43	0.61	0.52	0.58	0.52	0.55
B Females—										
Number	64	42	61	62	54	58	68	71	58	61
Rate	0.42	0.28	0.40	0.39	0.34	0.37	0.43	0.46	0.36	0.42
Deaths from other forms of tuberculosis—										
Number	50	43	51	35	39	45	43	39	29	36
Rate per 1000	0.32	0.28	0.33	0.22	0.24	0.28	0.27	0.24	0.18	0.24
A Males (all ages)										
Number	25	21	25	17	18	28	28	18	11	17
Rate	0.16	0.14	0.16	0.10	0.11	0.18	0.18	0.11	0.06	0.11
B Females (all ages)										
Number	25	22	26	18	21	17	15	21	18	19
Rate	0.16	0.14	0.17	0.11	0.13	0.10	0.09	0.13	0.11	0.13
C Children (un. 5 yrs)										
Number	21	20	26	22	24	22	21	19	8	22
Rate	0.15	0.13	0.17	0.13	0.15	0.13	0.13	0.12	0.05	0.14
Deaths from tuberculosis (all forms) —										
Number	191	152	187	158	161	200	193	203	170	180
Rate per 1000	1.28	1.00	1.21	1.15	1.02	1.26	1.22	1.29	1.07	1.21
Rate per 1000 England & Wales	1.12	1.00	1.06	1.03	0.96	0.97	0.93	0.96	0.89	0.89

TABLE T 3.

New cases and mortality during 1931.

Ages	*NEW CASES				DEATHS			
	Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
	M.	F.	M.	F.	M.	F.	M.	F.
0.....	—	—	3	3	—	—	3	3
1	1	—	15	14	—	—	9	7
5.....	6	2	16	16	1	1	1	1
10.....	4	6	9	8	—	—	1	—
15.....	11	17	3	8	7	6	1	2
20.....	17	19	3	6	5	11	—	2
25.....	29	33	3	3	15	23	1	1
35.....	25	19	1	1	17	10	—	—
45.....	32	14	2	1	23	7	1	—
55.....	15	3	3	2	10	2	—	2
65 and upwards.....	4	2	—	1	5	1	—	1
Totals.....	144	115	58	63	83	61	17	19

* Includes all primary notifications and also all other new cases of tuberculosis which came to the knowledge of the Medical Officer of Health during the year.

Of the 180 deaths certified as being due to tuberculosis 22 of these had not been notified before death. The medical practitioners who had failed to notify were communicated with, and satisfactory explanations were received in all cases.

VENEREAL DISEASES.

ADMINISTRATIVE ARRANGEMENTS.

The diagnosis and treatment of cases of venereal diseases have been carried on at the Municipal Clinic at the Birkenhead General Hospital for the past fourteen years. The new premises at the Hospital, to which reference was made in my report for last year, have proved very satisfactory and have conferred additional privacy on patients attending the clinic.

At this clinic, Dr. Foster, assisted by Dr. Woodeson, has dealt with the male patients, and Dr. Deacon, assisted by Dr. Williams, with the female patients.

The appointment of a full-time male venereal diseases orderly was made during the year. Formerly, the preparation of arsenical compounds for injections, the issuing of drugs, the sterilising of instruments, and the keeping of case records, was carried out in connection with both male and female cases by the health nurses engaged at the clinic; and it will be obvious that in the male clinic this arrangement was not an ideal one from the point of view either of the nurses or of the patients. Mr. Reginald Mott (late Chief Petty Officer in H.M. Navy), with 22 years' nursing experience and special training in venereal diseases, was elected to the post and took up his duties in March. He is responsible for the keeping of all case records, reports, the making out of requisitions, the care of instruments, the preparation of irrigations and arsenical solutions, the treatment of minor surgical cases and the nursing of patients in the male wards. The new arrangement has proved very satisfactory and the male clinic now runs with the greatest smoothness.

The total number of attendances at the clinic this year showed an increase of 107 as compared with 1930. The number of *male* attendances, however, decreased by almost 1,000; this can probably be accounted for by the decrease in the amount of shipping associated with the bad state of trade. In this respect it may be noted that the number of new cases from India and Burma decreased from 100 to 85. On the other hand there was an increase in the attendances of *female* patients of over 1,000.

Of the 563 new cases 414 were residents of Birkenhead, 34 were from Cheshire County, 4 from Wallasey, 3 from Liverpool and 85 from India, Burma and Ceylon.

At the special clinic for children which was opened at No. 9, Hamilton Square in 1926, Dr. Deacon has been in attendance during the year. At this clinic the number of new cases seen during the year was 70 as compared with 69 in the previous year; the attendances numbered 979 as compared with 1,104, a decrease of 125.

GENERAL NOTES.

Cases dealt with.—(a) General Hospital clinic. During the year 1,632 persons, comprising 985 males and 647 females were dealt with at the clinic as out-patients. This is an increase of 114 over the figure for 1930.

The total attendances of out-patients was 11,269; the number of in-patient days was 490.

New patients numbered 298 males and 265 females; of these 149 were non-residents of Birkenhead. As is usual in sea-ports sailors of many nationalities were treated at the clinic. Natives of Germany, Italy, Greece, Portugal, India, Burma and Ceylon, attended during the year.

(b) Hamilton Square clinic.—During the year 154 children (73 males and 81 females) were dealt with at the clinic as out-patients, the total attendances made being 979.

The new cases seen numbered 70, and were diagnosed as follows—

Syphilis (congenital in all cases)	29
Gonorrhœa	1
No venereal disease	40

Bacteriological work—(a) 536 smears were examined—107 at the clinic and 429 at the municipal laboratory—for the presence of gonococci, 4 specimens for the detection of spirochætes were examined at the clinic and 1 specimen was examined at the Municipal Laboratory. 11 specimens for the detection of other organisms were examined at the municipal laboratory.

(b) At the University of Liverpool, Professor Beattie examined 1,343 specimens, 718 of these being sent from the municipal clinic at the Birkenhead General Hospital, 60 from the Hamilton Square clinic, and 565 from private medical practitioners and hospitals in the area. Of the specimens sent, 1,341 were for the Wassermann reaction and 2 for the detection of gonococci.

In addition, the Municipal Bacteriologist, Dr. Ritchie, has been of great service in numerous ways. He has prepared autogenous vaccines, estimated blood urea and non-protein nitrogen in cases of albuminuria, performed Abelin's test (for detection of arsenic in urine) and carried out the colloidal gold test on cerebro-spinal fluid. As a result the work of the Medical Officers at the clinic has been greatly facilitated, and much time has been saved owing to the fact that they have not had to undertake the staining, preparation, and examination of specimens during or after clinic hours.

Special Cases.—There were two cases of arsenical dermatitis during the year, one in a male, the other in a female, patient. Both cleared up satisfactorily. There was one extremely severe case of metastatic gonorrhœa. This occurred in a seaman who, two years previously, had treatment for gonorrhœa in another clinic and had defaulted before completion of treatment. This man had every joint in his body incapacitated by gonorrhœal rheumatism and for a time was unable to move a single limb without intense pain. He was treated as a bed-patient for fourteen weeks, and it is due to the constant attention by the orderly that he has now practically fully recovered. Furthermore, he developed a gonococcal infection of both eyes, and I have to acknowledge the help of Dr. Charters who kindly attended to that condition.

Treatment of Birkenhead patients carried out at other treatment centres.—So far as has been ascertained from official returns which

have been received from other areas, Birkenhead patients attended other treatment centres as shown in Table V 3.

Issue of arsenobenzene compounds.—Arsenobenzene compounds were issued during the year by the Medical Officer of Health to the Medical Officers of the treatment centres at the General Hospital and at No. 9, Hamilton Square, to the Medical Officer, Birkenhead Infirmary, to five approved local practitioners.

TABLE V I.—(continued)

	Syphilis		Soft Chancre		Gonorrhoea		Conditions other than venereal		Totals		
	M.	F.	M.	F.	M.	F.	M	F.	M.	F.	T'ls.
10. Number of cases in the following stages of syphilis included in Item 6 which failed to complete one course of treatment—											
Syphilis, primary	14	12	—	—	—	—	—	—	14	12	26
„ secondary	2	9	—	—	—	—	—	—	2	9	11
„ latent in 1st year of infection.....	3	—	—	—	—	—	—	—	3	—	3
„ all later stages	14	41	—	—	—	—	—	—	14	41	55
„ congenital	2	—	—	—	—	—	—	—	2	—	2
11. Number of attendances—											
(a) For individual attention of the medical officers	1242	1716	25	—	1521	801	281	264	3069	2781	5850
(b) For intermediate treatment, e.g. irrigation, dressing.....	113	37	18	—	4314	698	159	80	4604	815	5419
Total attendances...	1355	1753	43	—	5835	1499	440	344	7673	3596	11269
12. In-patients —											
(a) Total number of persons admitted for treatment during the year	2	4	2	—	5	4	2	—	11	8	19
(b) Aggregate number of “in-patient days” of treatment given.	21	115	27	—	160	156	11	—	219	271	490
13. Pathological Work.—	Microscopical				Serum Tests						
	for Spirochetes		for Gonococci		Wassermann		Others for Syphilis		for Gonorrhoea		
(a) Number of specimens examined at and by the medical officer of the treatment centre	4		107		—		—		—		
(b) Number of specimens from patients attending at the centre sent for examination to an approved laboratory...	1		429		718		11		—		

TABLE V 2.

Statement showing the services rendered at the Venereal Diseases Clinic at the Birkenhead General Hospital during the year, classified according to the areas in which the patients resided.

	Birkenhead	Wallasey	Cheshire	Liverpool	Bath	Bristol	Carnarvonshire	Derbyshire	Denbighshire	Dudley	Flintshire	Middlesboro'	Newcastle-on-T.	Sunderland	South Shields	Burton-on-T.	Scotland	Ireland	Australia	India	Burma	Ceylon	Germany	Greece	Lithuania	Italy	Portugal	London	Total
A. Number of persons from each area dealt with during the year, at or in connection with the out-patient clinic for the first time, and found to be suffering from—																													
Syphilis	105	2	9	—	—	—	1	—	—	—	—	—	—	—	—	1	3	—	26	7	1	—	—	—	—	1	—	2	158
Soft chancre	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—	—	4
Gonorrhoea	96	2	16	—	1	—	—	2	—	—	—	1	—	1	—	1	1	—	14	5	1	1	—	—	1	—	1	144	
Conditions other than venereal	212	—	9	3	—	—	—	—	—	—	—	—	—	—	1	—	—	—	24	4	2	—	—	1	—	—	—	257	
Total	414	4	34	3	1	—	1	2	—	—	—	1	—	1	1	2	4	—	65	16	4	1	1	1	1	2	1	3	563
B. Total number of attendances at the out-patient clinic of all patients residing in each area	10204	73	487	13	45	1	4	18	2	4	6	3	1	1	7	2	1	19	28	249	31	11	13	1	29	2	2	12	11269
C. Aggregate number of in-patient days of all patients residing in each area	451	—	15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8	—	—	—	—	—	—	16	—	—	490
D. Number of doses of arsenobenzene compounds given in the out-patient clinic and in-patient department to patients residing in each area	1756	21	65	—	—	—	1	—	—	—	—	—	1	—	—	2	—	5	—	53	5	2	—	—	16	5	—	6	1941

TABLE V 3.

Statement showing particulars of Birkenhead cases treated at Venereal Diseases Clinics in other areas.

Name of town	No. of patients	Disease	Attendances at out-patient clinic	No. of in-patient days	No. of doses of arseno-benzene compounds given in the out-patient clinic and in-patient department
Liverpool (David Lewis Northern Hos.)	12	Syphilis 7 Gonorrhœa 4 Conditions other than venereal 1	266	—	63
(Stanley Hos.)	1	Syphilis 1	80	—	4
(Royal Infirm.)	12	Syphilis 3 Gonorrhœa 8 Conditions other than venereal 1	718	—	53
(Seamen's Dispensary)	60	Syphilis 7 Soft chancre 2 Gonorrhœa 39 Conditions other than venereal 12	2561	—	79
(Royal Southern Hospital)	5	Syphilis 1 Gonorrhœa 4	94	48	5
Wallasey	1	Conditions other than venereal 1	4	—	—
Greenwich ...	3	Gonorrhœa 3	61	48	—

OTHER INFECTIOUS DISEASES.**INFECTIOUS DISEASES WHICH ARE NOTIFIABLE.**

The infectious diseases which (in addition to tuberculosis already dealt with) were compulsorily notifiable to the Medical Officer of Health at any time during the past year are set out in Tables I 1 and I 2 below.

TABLE I 1.

Infectious diseases other than tuberculosis notified during 1931;
showing seasonal incidence.

Disease	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlatina	8	11	10	11	15	16	14	12	10	17	16	16	156
Diphtheria and membranous croup	40	31	21	11	20	16	14	7	6	16	18	21	221
Erysipelas	9	7	3	5	7	4	4	3	9	13	8	9	81
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	1	—	—	—	—	—	—	1	—	1	—	—	3
Continued fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis lethargica (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute)	—	—	—	—	—	—	—	—	—	—	1	—	1
Puerperal pyrexia	1	—	2	1	5	2	4	5	2	1	2	—	25
Puerperal fever	—	—	—	—	1	—	—	—	—	—	2	1	4
Ophthalmia neonatorum	2	—	5	—	3	—	1	4	2	1	2	—	20
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	103	57	41	25	17	22	20	16	27	18	31	89	466
Malaria	—	—	—	—	—	1	1	—	—	1	1	—	4
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	164	106	82	53	68	61	58	48	56	68	81	136	981

TABLE I 2.

Infectious diseases other than tuberculosis notified during 1931;
showing ages.

Disease	und. 1 yr.	1-2 yrs.	2-3 yrs.	3-4 yrs.	4-5 yrs.	5-10 yrs.	10-15 yrs.	15-20 yrs.	20-35 yrs.	35-45 yrs.	45-65 yrs.	65 yrs. up	To- tal.
Smallpox	—	—	—	—	—	—	—	—	—	—	—	—	—
Scarlatina	—	—	11	13	25	75	10	8	12	2	—	—	156
Diphtheria and membra- nous croup	—	12	15	15	21	90	33	19	13	1	2	—	221
Erysipelas	3	2	1	1	1	3	—	3	13	14	31	9	81
Typhus fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Typhoid fever	—	—	—	—	—	—	1	—	2	—	—	—	3
Continued fever.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Relapsing fever	—	—	—	—	—	—	—	—	—	—	—	—	—
Cerebro-spinal meningitis	—	—	—	—	—	—	—	—	—	—	—	—	—
Encephalitis lethargica (acute).....	—	—	—	—	—	—	—	—	—	—	—	—	—
Polio-encephalitis (acute)	—	—	—	—	—	—	—	—	—	—	—	—	—
Poliomyelitis (acute)....	1	—	—	—	—	—	—	—	—	—	—	—	1
Puerperal pyrexia	—	—	—	—	—	—	—	4	17	4	—	—	25
Puerperal fever	—	—	—	—	—	—	—	—	2	2	—	—	4
Ophthalmia neonatorum	20	—	—	—	—	—	—	—	—	—	—	—	20
Cholera	—	—	—	—	—	—	—	—	—	—	—	—	—
Pneumonia	51	56	24	20	19	47	13	19	85	50	57	25	466
Malaria	—	—	—	—	—	—	—	—	3	—	1	—	4
Dysentery	—	—	—	—	—	—	—	—	—	—	—	—	—
Trench fever ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	75	70	51	49	66	215	57	53	147	73	91	34	981

Case-rates of certain diseases.—The case-rates of certain diseases for Birkenhead, and for England and Wales, per 1,000 living, are set out below:—

	Case-rate per 1,000 living.	
	Birkenhead	England and Wales
Smallpox	0.00	0.14
Scarlet fever	1.05	2.05
Diphtheria	1.49	1.37
Enteric fever	0.02	0.06
Puerperal pyrexia	0.17	0.14
Puerperal fever	0.02	0.06
Erysipelas	0.54	0.38

Encephalitis lethargica.—No cases were notified during the year.

Cerebro-spinal fever.—No cases were notified during the year.

Smallpox.—No cases of smallpox were notified in Birkenhead during the year.

Smallpox was present in epidemic form in many parts of England and Wales throughout the year; 5,665 cases being notified. The Registrar-General's returns show the prevalence and mortality to have been as set out below:—

Smallpox in England and Wales.

Year	Number of cases	Deaths
1924	3,792	13
1925	5,365	9
1926	10,205	19
1927	14,769	49
1928	12,433	53
1929	10,975	39
1930	11,855	28
1931	5,665	9

DISINFECTION.

Books.—124 Public Library books were collected from infected houses and disinfected.

Dwellings.—286 house-disinfecting notices were served; 439 houses or parts of houses were disinfected during the year.

Bedding and clothes.—Infected bedding and clothes were collected from 307 dwellings and disinfected. In 29 further cases infected or discarded bedding and clothes were destroyed.

Visits and revisits paid to houses, etc., by the Infectious Diseases Inspector.—2,851 visits and revisits to property were made during the year in connection with disinfection after infectious diseases (including tuberculosis).

VACCINATION.

Public vaccination.—In connection with the coming into force of the provisions of the Local Government Act, 1929, the duties in connection with public vaccination have been transferred to the Local Authority, who have empowered the Health Committee to administer the Vaccination Acts within the Borough.

Information relative to the number of persons successfully vaccinated and re-vaccinated at the cost of the rates by the Medical Officers of the Poor Law Institutions and the Public Vaccinators during the year ended 30th September, 1931, is given below:—

Name of District	Name of Medical Officer or Public Vaccinator	No. of successful primary vaccinations of persons:—			No. of successful re-vaccinations, <i>i.e.</i> , of persons who had been successfully vaccinated at some previous time.
		Under 1 year of age	1 year and upwards	Total	
Birkenhead	Dr. H. C. Pierce	593	7	600	—
Tranmere	Dr. H. L. Pearson	509	13	522	8
Birkenhead Infirmary and Institution	Dr. G. J. French... ..	2	—	2	—
	Total ..	1,104	20	1,124	8

The following is the latest completed information relative to vaccination in the Borough and relates to children whose births were registered from 1st January to 31st December, 1930, inclusive, viz.:—

	Birkenhead District	Tranmere District	Whole Borough
No. of births	1,614	1,237	2,851
Successfully vaccinated	959	749	1,708
Insusceptible	13	17	30
Had smallpox.....	—	—	—
Number in respect of whom statutory declarations of conscientious objection have been received	388	319	707
Died unvaccinated	97	91	188
Postponements, removals, or cases not found, etc.....	157	61	218
Total No. of certificates and copies of certificates of successful primary vaccination of children received during the calendar year 1931	902	815	1,717
No. of statutory declarations of conscientious objection actually received by the Vaccination Officers irres- pective of the dates of birth of the children under 14 to which they relate during the calendar year 1931	399	350	769
No. of cases succes-fully vaccinated after the declara- tion of conscientious objection had been made	—	—	—
No. of copies of certificates of successful primary vaccination sent to Vaccination Officers of other districts during 1931	11	78	89

Public Health (Smallpox Prevention) Regulations, 1917.—No primary vaccinations or revaccinations were performed by the Medical Officer of Health during the year.

ISSUE OF DIPHTHERIA ANTITOXIN.

During the year, in accordance with the provisions of the Diphtheria Antitoxin (outside London) Order, 1910, diphtheria antitoxin was issued to 16 medical practitioners; a total of 296,000 units was given out.

IMMUNISATION AT CLINICS AGAINST DIPHTHERIA.

Since 1926 facilities have been offered to the mothers attending the infant welfare clinics to have their children immunised against diphtheria.

During the year ended 31st December, 1931, 128 children were presented at the various clinics for the first of a course of immunising injections. Of these, 73 completed the course before the end of the year, 22 had 2 injections and 33 had 1 injection. In addition, 22 children whose treatment was commenced in 1930 were given their final injections, making a total of 95 children completing the course in 1931. From the date of the commencement of the treatment in 1926 until the end of 1931, 474 children have received the full course of 3 or more injections.

Children who have received less than 3 injections cannot be said to have full opportunity of complete immunisation. Experience indicates that about 80% of cases who have had a full course will be immune, while the remaining 20% may require a further short course of treatment.

Details of treatment carried out in 1931 are set out below:—

Clinic	1 injection	2 injections	3 or more injections	Total	1930 cases completed	Total
Hamilton Square	21	12	57	90	12	102
North	1	—	3	4	—	4
St. Paul's Road	6	6	7	19	4	23
Mount Grove	5	4	6	15	6	21
Total	33	22	73	128	22	150

(Note.—For immunisation carried out at the Fever Hospital see page 40).

HOME NURSING.

The arrangement made between the Corporation and the Birkenhead District Nursing Society, dating from 1st July, 1919, provides for the home nursing of cases of influenza and pneumonia. During the year 1931 the Society's nurses paid 1,388 visits in respect of 77 cases.

INFECTIOUS DISEASES HOSPITAL.

Cases treated during 1931.—At the beginning of the year there were 53 patients in the Infectious Diseases Hospital, Flaybrick Hill.

During the year 366 new cases were admitted; so that the cases under treatment in hospital at any time during 1931 numbered 419.

There were 365 discharges and 21 deaths during the year; leaving 33 patients in hospital on 31st December, 1931.

The diseases treated, together with the sex of the patients and particulars as to recoveries and deaths, are shown below.

TABLE I 3.

Patients sent in as suffering from	In hospital at beginning of year	Admitted during year	Died during year	Discharged cured during year	Remaining in hospital at end of year
Scarlet fever .....M.	3	61	0	60	4
.....F.	8	57	0	61	4
Diphtheria.....M.	17	90	6	90	11
.....F.	24	128	12	128	12
Enteric fever .....M.	1	2	0	3	0
.....F.	0	2	1	1	0
Cerebro spinal fever .....M.	0	0	0	0	0
.....F.	0	1	1	0	0
Other diseases .....M.	0	14	0	12	2
.....F.	0	11	1	10	0
Totals	53	366	21	365	33

Final diagnosis (all cases).—The final diagnosis arrived at in connection with the 386 patients who were discharged from, or died in, hospital during the year was as follows:—

Diphtheria	200
Scarlet fever	102
Tonsillitis	25
Measles	14
Laryngitis and whooping cough	6
Rubella	6
Septic rash	4
Paratyphoid fever	3
Enteric fever	2
Varicella	2
Measles, whooping cough and tonsillitis	2
Erythema	2
Impetigo	2
Whooping cough and german measles	1
Acute laryngitis	1
Vincent's angina	1
Quinsy	1
Cerebro-spinal meningitis	1
Cervical caries	1
Anæmia	1
Influenza	1
Peliosis rheumatica	1
Eczematous dermatitis	1
Peritonsillar abscess	1
Tonsillitis and urticaria	1
Urticaria	1
Laryngismus stridulus	1
Erysipelas	1
No disease	1

386

Scarlet fever.—Of the patients who were discharged from, or died in, hospital during the year 121 had been sent in as suffering from scarlet fever. Of these 102 were found actually to be suffering from the disease. None of these cases died.

Complications.—The complications met with among the 102 completed cases were as follows:—

11 suffered from adenitis	10.7%
7 suffered from heart murmurs	6.8%
11 suffered from rhinitis	10.7%
9 suffered from otorrhœa	8.8%
2 suffered from myocarditis	1.9%
4 suffered from albuminuria	3.9%

Average stay in hospital.—The average length of stay in hospital of all cases notified as scarlet fever was 30.3 days. The usual period of isolation for uncomplicated cases was 28 days (calculated from the onset of the disease).

Type of disease.—This was exceedingly mild, with a similar percentage incidence of the various complications to that of the previous

6 years. There were no cases of a septic or toxic type, and no patients died of the disease.

Use of antiscarlatinal serum.—This has been used in nearly every case, as was done in previous years. It appears to lessen the severity of the disease, and also reduces the number of complications. This was statistically proved in 1928.

Diphtheria.—

Cases discharged or died, notified as diphtheria	236
Cases found to be suffering from diphtheria on admission	200
Cases found not to be suffering from diphtheria	36
Deaths from diphtheria	18
Case mortality rate approximately	9.0%

Of those found not to be suffering from diphtheria—

1 died of tonsillitis and laryngitis.

There were 18 deaths from diphtheria in the hospital during the year; 5 of these dying within 24 hours of admission.

Tracheotomy.—5 cases required the operation of tracheotomy for laryngeal obstruction, 3 of whom died, giving a death rate of 60.1%.

Average stay in hospital.—The average length of stay in hospital of all cases notified as diphtheria was 43.80 days.

Type of case.—Diphtheria was most prevalent during the first three months of the year; the incidence then began to decline.

Immunisation.—The immunisation of members of the staff and patients suffering from diseases other than diphtheria has been continued. In addition, other children (e.g., the brothers or sisters of patients) have been immunised at the request of parents. The following table shows the work done at the hospital during the year 1931 as regards testing for susceptibility (Schick testing) and immunisation of those shown to be susceptible. This work is also carried on at the school and child welfare clinics and some of the cases shown below as incomplete have been completed at these clinics.

	Tested	Positive	Negative	Immunisation		
				Completed y immunised	Partially immunised	Immunisation in progress
Staff	4	4	—	3	—	5
Patients {	Over 15.....	9	3	6	1	1
	15 & under	91	39	52	38	17
Totals	104	46	58	42	18	20
Re Schicked.....	13	3	10	—	—	—

Complications.—The complications met with among the 200 completed cases of diphtheria were as follows:—

Paralysis or paresis—

Palatal, cardiac, legs and arms (1).

Palatal, ciliary, arms and legs (1).

Palatal, ciliary and heart (1).		
Palatal, cardiac and diaphragm (1).		
Palatal, cardiac and legs (1).		
Palatal and cardiac (4), vagus (2)		
Palatal (17), cardiac (5)	33	16.5%

Heart affections—

Myocarditis (11), Systolic murmur		
(9) Bradycardia (5), Extrasystole		
(5), Tachycardia (4)	34	17.0%
Adenitis	16	8.0%
Albuminuria	15	7.5%
Carriers of virulent bacilli	12	6.0%
Measles	10	5.0%
Otorrhœa	5	2.5%
Abscesses	5	2.5%
Rhinorrhœa	4	2.0%
Tonsillitis	4	2.0%
Pneumonia	2	1.0%
Chickenpox	1	0.5%
Scarlet fever	1	0.5%
	<hr/> 142	<hr/> 71.0%

Other diseases—

Enteric fever.—Five cases were sent in as enteric fever. One of the patients, a man, was in hospital for 59 days, during which period he developed a secondary minor attack. He made a good recovery. As his mother had been a patient in the hospital six years previously with typhoid, the suspicion was aroused that she might be a carrier of the disease. Tests were performed in the municipal laboratory, and it was found that she was still harbouring the *Bacillus Typhosus*, and had in all probability infected the son. She was herself in good health. Careful instructions were given as to her mode of life in order to prevent any risk of further infection.

Cerebro-spinal fever.—One case was sent in as cerebro-spinal fever but proved to be suffering from tuberculous meningitis and died.

Erysipelas.—One case was admitted and was discharged cured.

Chickenpox.—Two cases were sent as chickenpox and recovered.

Measles.—14 cases were admitted and were discharged cured.

Rubella.—Six cases were admitted and were discharged cured.

Pertussis.—Five cases were admitted; 3 were discharged cured; 2 remained in at the end of the year.

Staff.—Throughout the year Dr. Woodeson acted as resident assistant medical officer at the hospital. He terminated his duties on 31st December.

New ward pavilion.—Towards the end of the year the erection of a new ward pavilion with accommodation for 30 patients was completed. The total beds available for patients at the hospital is now 118.

Training of nurses.—Courses of instruction for the examinations of the General Nursing Council have been continued.

Infectious illness among the staff.—There have been no cases of infectious illness among the staff during the year. No probationer

nurse is allowed to commence duty in the wards allocated for cases of diphtheria until she is either proved Schick-negative (non-susceptible) or until she has been given a complete immunising course of injections with a final negative Schick-test.

E. P. Smith memorial fund.—No case received assistance from this fund during the year.

MUNICIPAL LABORATORY.

ADMINISTRATIVE ARRANGEMENTS.

Dr. J. Morrison Ritchie has been in charge of the work carried out at the Municipal Laboratory throughout the year. A qualified assistant took up duty in May; the staff now consists of Dr. Ritchie as Bacteriologist, one senior and one junior laboratory assistant.

The work of the laboratory covers a wide field, and is of the highest importance to the general public health. Many branches of laboratory work are based on scientific discoveries made within the last few years.

The work carried out for the Infectious Diseases Hospital, Thingwall Sanatorium, and Tranmere Infirmary includes general bacteriological, pathological and biochemical examinations; ward visits; lectures to nurses, and consultations with medical staff.

The bacteriological supervision of the Corporation water supply from Alwen is carried out at the laboratory. Food poisoning outbreaks are investigated. Clinical material from suspected cases of enteric, tuberculosis, typhus, anthrax, diphtheria, etc., is examined. The milk supply of the Borough is kept under observation.

EXAMINATIONS CARRIED OUT AT THE LABORATORY.

Examination of Clinical Material:—The nature and number of examinations of clinical material made at the municipal laboratory during 1931 are shown in the following table:—

Examination	Total
Sputa for <i>B. tuberculosis</i> (295 positive)	1473
Cultures for <i>B. diphtheriae</i> (469 positive)	1994
Blood tests (Widal) against enterica group (3 positive)	39
Urine for <i>B. typhosus</i>	7
Faeces for <i>B. typhosus</i>	7
Smears for gonococci	511
General examinations (1) Bacteriology	728
(2) Biochemistry	257
(3) Pathology	152
Vaccines issued	29
Milk, graded, bacterial counts of	161
Milk, samples for tubercle bacilli	421
Diphtheria virulence tests	20
Water examinations	97
Total	5896

Bacteriological examinations of water.—Examinations of the Alwen water supply were carried out at the laboratory during the year, on the lines indicated in my annual report for 1924. In all, 85 complete bacteriological examinations were made, samples being taken from the mains, and from the Alwen reservoir before and immediately after filtration. In addition, 12 specimens from other sources were examined.

Bacteriological examination of milk.—(A) *The testing of graded milks.*—During the year the regular bacteriological examination of milk was carried out. 161 samples were examined. The work is undertaken primarily because of the introduction into the Borough of “designated milks” as laid down in the Milk (Special Designations) Order, 1923. These milks are:—

- (1) Certified milk.
- (2) Grade A (tuberculin tested) milk.
- (3) Grade A milk.
- (4) Pasteurised milk.

The bacteriological examinations consist of:—

- (a) The enumeration of the micro-organisms present per cubic centimetre.
- (b) Examination for the presence of *B. coli* in specified quantities of milk.

The examination of certified milk is carried out at the request of, and for, the Ministry of Health, who grant licences for the production of this milk.

The Grade A milks are examined for the Corporation, who grant the licences for the retailing of this class of milk.

In addition to the designated milks, other samples of milk have been examined from time to time, but no routine examination is carried out on ordinary milk, for which no standard of bacteriological purity has been laid down.

(B) *The examination of milk for tubercle bacilli.*—The procedure followed in connection with the examination of milk for tubercle bacilli was explained in my 1927 report. During 1931, 421 samples, all of ordinary milk, were examined for tubercle bacilli.

Out of these 421 samples, living tubercle bacilli were found in 43. After making allowance for duplicates this means that living tubercle bacilli were found in nearly 10 per cent. of the samples examined. As much of the tuberculosis found in children is due to such milk, the importance of this branch of the work can hardly be over-emphasised.

Water at Swimming Baths:—During the year a beginning was made with the examination of water taken from the Corporation baths with a view to the ascertainment of the fouling effects of bathers and the results of chlorination. Comparatively few figures are available as yet but it would appear that at all times when the baths are open to the public the water is commendably pure.

Diphtheria:—Outbreaks occurred during the year in a school and an institution. All contacts (over 200) were swabbed and examined. After the isolation of the several carriers found, no further cases occurred.

Lectures: In connection with the State Certificate of the General Nursing Council, lectures on Bacteriology, Pathology and Biochemistry are now being given to the nursing staff of the Birkenhead Infirmary. The first series, given in the Autumn, has already resulted in increased co-operation between the wards and the laboratory.

Comparison with 1930:—Below is set out a comparison between the work done in the laboratory in 1930 and 1931.

Nature of Specimens	1930	1931
Sputa for B. tuberculosis	482	1473
Cultures for B. diphtheriae	1514	1994
Blood tests against enterica group	32	39
Smears for gonococci	84	511
General bacteriological examinations	120	742
General biochemical examinations	—	257
General pathological examinations	—	152
Vaccines issued	—	29
Milk, graded, bacterial counts	93	161
Milk, samples for tubercle bacilli	99	421
Diphtheria virulence tests	18	20
Water, bacteriological examinations	87	97
Total	2529	5896

Laboratory accommodation:—While the laboratory equipment is most up-to-date and practically complete, and the staff sufficient to cope with all the demands which are likely to be made, the premises available are not only inadequate, but are so restricted as to interfere with the work and entail repetitions and waste of material and time. The question of the provision of new premises has been under consideration for some time, but no final decision had been reached at the end of the year.

MENTAL DEFICIENCY.

ADMINISTRATIVE ARRANGEMENTS.

Cases of mental deficiency fall into two categories—

- (a) Those which can be dealt with under the Mental Deficiency Acts, 1913 and 1927; for these the Mental Deficiency Acts Committee is responsible.
- (b) Those which can be dealt with under the Education Act, 1921; for these the Education Committee is responsible.

CASES COMING WITHIN THE PROVISIONS OF THE MENTAL DEFICIENCY ACTS, 1913 and 1927.

The definition of cases coming within the provisions of the above Acts was given in full in my report for last year.

During the past year 21 new cases came under the care of the Mental Deficiency Acts Committee.

6 cases were sent to institutions by judicial orders.

15 cases were placed under supervision pending institutional vacancies arising; 6 cases were placed under home supervision; 1 case died during the year; 2 cases were discharged from institutions.

18 first visits and 204 revisits were paid to the homes of mental defectives by the Health Nurses.

At the end of 1931 there were under the care of the Mental Deficiency Acts Committee 429 cases, as set out in the following table:—

In institutions (placed by the Mental Deficiency Acts Committee under judicial orders)—

	Males	Females	Total
Ashton House (Birkenhead)	0	1	1
Birkenhead Institution	9	6	15
Chester Institution	0	3	3
Royal Albert Institution (Lancaster)	11	2	13
Sandlebridge Colony (Cheshire)	2	3	5
Stoke Park Colony (Bristol)	2	3	5
Newtown Institution (Caerwys)	1	0	1
Royal Hostel (Surrey)	1	0	1
Whittington Hall (Chesterfield)	0	3	3
	<hr/> 26	<hr/> 21	<hr/> 47

In institutions (placed by the Birkenhead Public Assistance Committee, or by parents; not under judicial order)—

Birkenhead Institution	5	14	19
Royal Albert Institution (Lancaster)	6	1	7
	<hr/> 11	<hr/> 15	<hr/> 26

In Rampton State Institution (placed by Board of Control—cases which have become too violent for retention in ordinary institutions)

2	3	5
---	---	---

Under home supervision—	Males	Females	Total
(a) Cases discharged from institutions	2	6	8
(b) Cases which should be in institutions	30	18	48
(c) Others (including ex-Special School cases, 213 in number)	182	110	292
Under Guardianship	2	1	3
	216	135	351
Total	255	174	429

Scarcity of institutional accommodation.—It will be seen that in the above table 48 cases at present under home supervision are classed as cases which should be in institutions. Adding to these the 26 cases which are in institutions but are not under order, and for which provision should be made by the Local Mental Deficiency Authority, there is a total of 74 cases, as at the end of 1931, for whom institutional accommodation should be provided.

The difficulties which have been experienced in endeavouring to discover accommodation for these cases, and the urgent need for the provision of adequate local accommodation, were fully discussed in my annual report for 1925.

The Cheshire Joint Board for the Mentally Defective, the constituent authorities of which are the Administrative County of Chester, and the County Borough Councils of Birkenhead, Chester and Wallasey, have acquired an estate at Cranage Hall, near Holmes Chapel, Cheshire, for the purpose of providing a joint institution for mentally defective persons in their areas. Plans have been prepared for the lay-out of the proposed colony and a first instalment of the work is now in progress.

CASES DEALT WITH UNDER THE EDUCATION ACT, 1921.

The definition of cases coming within the provisions of the above Act was set out in my last annual report.

CASES COMING WITHIN THE PROVISIONS OF THE BLIND PERSONS ACT, 1920.

The following classes of persons are included in the category of mental defectives by the Ministry of Health for the purposes of the Blind Persons Act, 1920:—

Blind persons suffering from epilepsy, fits or nervous disability.

WELFARE OF THE BLIND.

GENERAL FACTS REGARDING BLIND PERSONS IN BIRKENHEAD.

Number and ages of blind persons.—The total number of blind persons in Birkenhead coming within the scope of the Blind Persons Act, 1920, on 31st December, 1931, was 334; of these 186 were males and 148 females.

Age.		M.		F.		Total.
0—5	...	—	...	—	...	—
5—16	...	5	...	1	...	6
16—21	...	11	...	3	...	14
21—30	...	11	...	9	...	20
30—40	...	11	...	10	...	21
40—50	...	27	...	17	...	44
50—60	...	25	...	15	...	40
60—70	...	44	...	38	...	82
Over 70	...	52	...	55	...	107
Total ...		186	...	148	...	334

Blind persons who are otherwise defective.—Fifty-nine of the blind persons on the register were handicapped in addition by other physical or mental defects:—

		M.		F.		Total
Mentally defective	...	7	...	2	...	9
Deaf	...	14	...	8	...	22
Deaf and Dumb	...	1	...	1	...	2
Otherwise physically defective	13	...	13	...	...	26
		35	...	24	...	59

Children under 16 years of age.—These numbered 6; 5 boys and 1 girl. 3 boys and 1 girl were attending schools for the blind; 1 boy was awaiting admission to such a school; and 1 boy, who suffers from tuberculosis, was not in any school or institution.

Conditions as regards employment.—The following table shows the position of blind persons in the area over the age of 16 with reference to employment:—

		M.		F.		Total.
Employed	...	18	...	2	...	20
Trained but unemployed	...	9	...	9	...	18
Under training	...	2	...	1	...	3
Awaiting admission to Training School	...	2	...	—	...	2
Not trained, but prob- ably trainable	...	13	...	2	...	15
Probably unemployable	137	...	133	...	...	270
		181	...	147	...	328

The occupations of the employed blind in the area were as follows:—

Agents, collectors, etc.	...	...	...	...	2
Basket and cane workers, brush-makers, mat makers	...	...	...	...	12
Home teacher	...	...	...	...	1
Newsvendor	...	...	...	...	1
Tuners	...	...	...	...	2
Miscellaneous	...	...	...	...	2
Total					20

Home Teacher.—Miss S. E. Jones, who was appointed Home Teacher in 1928, retired in July, her place being taken by Miss Clara Halliwell, who took up duties on 1st June. Since that time Miss Halliwell has paid 1,211 visits to blind persons, including 99 visits for the purpose of teaching Braille.

Home visiting by Health Nurses.—The Health Nurses paid 52 first visits and 338 revisits to blind persons in the area.

Wireless Sets.—167 wireless sets, received from the British “Wireless for the Blind” Fund, were distributed during the year.

Financial assistance to blind persons.—At the end of the year 252 blind persons (135 males and 117 females) were in receipt of financial assistance under the scheme of the Council for the Welfare of the Blind.

HOUSING AND GENERAL SANITATION.

ADMINISTRATIVE ARRANGEMENTS.

The staff engaged on the work of housing and general sanitary inspection consisted, at the end of the year, of the Chief Inspector, one housing inspector, and eight sanitary inspectors.

The eight sanitary inspectors are required to devote approximately half their time to the work of housing inspection.

GENERAL.

Area of the Borough.—The area of the Borough (land and inland water) was at the time of the 1931 census 5,995 statute acres. This area is largely built over, or otherwise occupied, by domestic buildings, docks, factories, railway stations, and sidings, etc.

Number of dwelling houses in the Borough.—The approximate number of dwelling houses of all descriptions within the Borough, excluding institutions, on 31st December, 1931, was 31,573.

New dwellings, erected, 1921-1931.—The new dwellings erected in the Borough between the date of the 1921 census and the end of 1931 were as follows:—

(1)	Between the date of the 1921 census and 31st December, 1930	
(a)	With State assistance under the Housing Acts, 1919-1925	
(i)	By the Local Authority	1908
(ii)	By other bodies or persons	609
(b)	Other	685
		<hr/>
		3202
(2)	During 1931	
(a)	With State assistance under the Housing Acts, 1919-1925	
(i)	By the Local Authority	267
(ii)	By other bodies or persons	0
(b)	Other	101
		<hr/>
		368
		<hr/>
	Total	3570
		<hr/>

In addition to the above, 3 houses were converted into 8 flats, making a further nett gain of 5 houses.

No houses were erected during the year which did not comply with the building byelaws.

Uninhabited property.—The following is a return of uninhabited property in Birkenhead for the past year:—

Districts	Half-year ended 30th June, 1931					Half-year ended 31st Dec., 1931				
	Private houses	Shops	Cot-tages	Dock cottag's	Total	Private houses	Shops	Cot-tages	Dock cottag's	Total
Birkenhead	19	14	—	—	33	29	14	—	—	43
Cloughton and Oxtan	8½	8	1	—	91	97	10	—	—	107
Tranmere, Rock Ferry, and added areas	120	27	—	—	147	131	17	—	—	148
Total ..	221	49	1	—	271	257	41	—	—	298

The total uninhabited and unoccupied property, 31st December, 1930, was 309 so that there was a decrease of 11 at the end of 1931 as compared with the previous year.

ADMINISTRATIVE ACTION TAKEN IN CONNECTION WITH HOUSING AND GENERAL SANITATION.

(a) Housing: action taken under Housing and Public Health Acts.

During the twelve months ending December 31st, 1931, the following work was carried out by the department under the provisions of the Housing and Public Health Acts, and Regulations:—

1. Inspection of Dwelling-houses during the Year:—

- (1) (a) Total number of dwelling-houses inspected for housing defects (under Public Health or Housing Acts) 10228
- (b) Number of inspections made for the purpose 61118
- (2) (a) Number of dwelling-houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 1096
- (b) Number of inspections made for the purpose 15174
- (3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation 16
- (4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation 1001

2. Remedy of Defects during the Year without Service of Formal Notices:—

Number of defective dwelling-houses rendered fit in consequence of informal action by the Local Authority or their officers 3

3. Action under Statutory Powers during the Year:—

A.—Proceedings under Sections 17, 18 and 23 of the Housing Act, 1930:

- (1) Number of dwelling-houses in respect of which notices were served requiring repairs 1001

- (2) Number of dwelling-houses which were rendered fit after service of formal notices:—

(a) By owners	533
(b) By local authority in default of owners	—

B.—Proceedings under Public Health Acts:

- (1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied 4281
- (2) Number of dwelling-houses in which defects were remedied after service of formal notices:—
- | | |
|---|------|
| (a) By owners | 4623 |
| (b) By local authority in default of owners | — |

C.—Proceedings under Sections 19 and 21 of the Housing Act, 1930:

- (1) Number of dwelling-houses in respect of which Demolition Orders were made 1
- (2) Number of dwelling-houses demolished in pursuance of Demolition Orders —

D.—Proceedings under Section 20 of the Housing Act, 1930:

- (1) Number of separate tenements or underground rooms in respect of which Closing Orders were made —
- (2) Number of separate tenements or underground rooms in respect of which Closing Orders were determined, the tenement or room having been rendered fit —

E.—Proceedings under Section 3 of the Housing Act, 1925:

- (1) Number of dwelling-houses in respect of which notices were served requiring repairs —
- (2) Number of dwelling-houses which were rendered fit after service of formal notices:—
- | | |
|---|-----|
| (a) By owners | 469 |
| (b) By local authority in default of owners | — |
- (3) Number of dwelling-houses in respect of which Closing Orders became operative in pursuance of declarations by owners of intention to close —

F.—Proceedings under Sections 11, 14, and 15, of the Housing Act, 1925:

- (1) Number of dwelling-houses in respect of which Closing Orders were made —
- (2) Number of dwelling-houses in respect of which Closing Orders were determined, the dwelling-houses having been rendered fit 3
- (3) Number of dwelling-houses in respect of which Demolition Orders were made —
- (4) Number of dwelling-houses demolished in pursuance of Demolition Orders —

NOTE.—Sections 11 to 15 of the Housing Act, 1925, have been repealed by the Housing Act, 1930, but the proviso to Section 64 of the Act of 1930 continues in force any Closing Orders and Demolition Orders made before the operation of the Act (15th August, 1930), and houses subject to those Orders must continue to be dealt with under the relative provisions of the Act of 1925.

(b) **Housing: actual defects in domestic dwellings dealt with under (a) above.**

The following is a summary of sanitary improvements effected at dwelling-houses during the year under the provisions of the Housing and Public Health Acts.—

General Repairs—

Roofs repaired	1199	Dampness remedied	221
Chimney stacks pointed or repaired	322	Nuisances from animals abated	16
Rainwater gutters repaired or renewed	629	Yard surfaces relaid or repaired	826
Down spouts repaired or renewed	405	Yard surfaces—proper means of drainage provided	9
Down spouts disconnected from drains	17	Sufficient water supply provided	24
Walls pointed or repaired ...	1914	<i>Drainage—</i>	
Lighting improved	16	New drains constructed	64
Ventilation improved	161	Old drains reconstructed.....	117
Windows repaired	589	Drains repaired	224
New sash cords provided ...	1638	Drains disconnected from sewer	10
Window fasteners renewed...	562	Drains—inspection chambers provided	9
Windows made to open	273	Drains ventilated	13
Firegrates repaired	805	Drains cleansed	952
Ovens repaired or renewed...	204	Self-cleansing gullies provided ..	46
Plastering to firegrates repaired	413	Number of excavations made for the purpose of testing the condition of house drains	82
Hearthstones repaired or renewed	178	Number of smoke tests applied to drains of houses reconstructed under the supervision of this department	353
Floors relaid or repaired.....	1128	Number of water tests applied to drains	55
Skirting boards repaired or renewed	206	Number of smoke tests applied to the drains of new houses, in conjunction with the Borough Engineer and Surveyor's department	108
Wall plaster repaired	1952	<i>Water closets—</i>	
Ceiling plaster repaired	711	Roofs repaired.....	398
Walls cleansed	326	Walls repaired.....	482
Ceilings cleansed	258	New basins fixed.....	193
Doors repaired.....	686	Connections repaired	554
Door fasteners repaired or renewed	1068		
Sinks repaired or renewed ...	186		
Sink waste pipes repaired ...	356		
Sink waste pipes trapped ...	39		
Washing boilers repaired ...	284		
Washing boilers—new pans provided	72		
Washing boilers—firegrates repaired	218		
Washing boilers—flues repaired ..	72		

Cisterns repaired or renewed.	175	Provided with doors	1
New flush pipes fixed.....	13	Roofs repaired.....	6
Provided with a sufficient		Walls repaired.....	6
supply of water	153	Cemented inside ..	9
Doors repaired or renewed ...	363	Abolished.....	463
Seats repaired or renewed...	27	Ashbins provided...	1571
<i>Ashpits—</i>		<i>Miscellaneous—</i>	
Provided with roofs	1	(not included above)	2358

(c) **General sanitation exclusive of housing.**

The following shows, in summarised form, the work carried out by the Sanitary Inspection staff in connection with matters other than the condition of domestic dwellings:—

Number of smoke observations taken	12
Number of smoke nuisances from factory and other chimneys reported to the Health Committee	—
Number of schools specially examined by the sanitary inspectors	30
Number of cowsheds inspected	41
Number of inspections of dairies and milkshops	811
Number of inspections <i>re</i> offensive trades	339
Number of sewer ventilators inspected	57
Number of street gullies inspected	111
Number of caravans inspected	50
Number of caravans re-inspected	14
Number of back passages inspected	155
Number of investigations regarding the keeping of pigs, fowls, and other animals	187
Miscellaneous inspections (not included above)	404

(d) **Theatres, Music Halls, &c.**

(Ministry of Health Circular No. 120, dated 25th August, 1920).

95 visits were made to theatres, music halls and other places of entertainment, with a view to ascertaining whether conditions as to ventilation, structure of dressing rooms, &c., were satisfactory.

(e) **Rats and mice.**

The following is a summary of the work carried out by the district inspectors under the provisions of the Rats and Mice (Destruction) Act, 1919:—

No. of premises inspected	186
No. of visits and re-visits	298
No. of notices served on occupiers	123
No. of notices served on owners	91
No. of premises satisfactorily dealt with	142
No. of premises still under observation or where work is being carried out	44

(f) **Inspection of lodging houses, &c.**

During the year the inspector of common lodging houses, &c. paid regular visits to common lodging houses, and houses let in lodgings and to the Corporation tenement dwellings.

Registered commor. lodging houses (12 in number) :	
Day inspections	3282
Night inspections	132
Insanitary conditions reported and dealt with	20
Houses let in lodgings (333 in number):	
Day inspections	2579
Night inspections	—
Insanitary conditions reported and dealt with	223
Corporation tenement dwellings (132 in number):	
No. of visits	3584
Insanitary conditions reported and dealt with ..	144

FACTORIES, WORKSHOPS AND WORKPLACES.

FACTORY AND WORKSHOP ACTS, 1901 AND 1907.

The Factory and Workshop Act, 1901 (s. 132), requires the Medical Officer of Health in his annual report to the Council to report specifically on the administration of that Act in workshops and work-places. The following is a summary of the work carried out during the year.

1.—Inspection of factories, workshops and workplaces.

Premises	No. of		
	Inspections	Written notices	Prosecutions
Factories (including Factory Laundries)	—	—	—
Workshops (including Workshop Laundries) ...	923	81	—
Workplaces (other than Outworkers' premises)...	4	1	—
Total.....	927	82	—

2.—Defects found in factories, workshops and workplaces.

Particulars	No. of defects			Number of prosecutions
	Found	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts*—</i>				
Want of cleanliness	32	32	—	—
Want of ventilation	—	—	—	—
Overcrowding	—	—	—	—
Want of drainage of floors	—	—	—	—
Other nuisances.....	8	8	—	—
Sanitary accommodation—				
Insufficient	—	—	—	—
Unsuitable or defective	11	11	—	—
Not separate for sexes	—	—	—	—
<i>Offences under the Factory & Workshops' Acts—</i>				
Illegal occupation of underground bake-house (s. 101)...	—	—	—	—
Other offences	—	—	—	—
(Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops Transfer of Powers) Order, 1921.)				
Total.....	51	51	—	—

*Including those specified in sections 2, 3, 7 and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

Home work.—Lists were received from employers as follows:—

From employers sending twice in the year—3 lists (8 workmen).

From employers sending once in the year—4 lists (2 contractors, 7 workmen).

In each case the work handled was the making of wearing apparel.

Registered workshops.—The workshops on the register at the end of the year were:—

Bakehouses	59
Confectioners	50
Boot repairers	48
Cabinet making and upholstery	24
Dressmaking	27
Millinery	13
Tailoring	26
Laundries	22
Joinery and carpentry	22
Saddlery and harness making	6
Smiths	13
Wagon repairers	6
Motor and cycle repairers	11
Other workshops	39
	<hr/>
	366
	<hr/>

Other matters.

Workshops removed from the register	13
New workshops opened and placed on register	12
Underground bakehouses discontinued	—
Number of underground bakehouses on the register at the end of the year	21
Instances of failure to affix abstract dealt with	—

RAG FLOCK ACT, 1911.

Pursuant to the provisions of the above Act, 6 visits were made.

At the time of these visits the rag flock being used or stored on the premises was to all appearance in a satisfactory condition; no samples were, therefore, taken for the purpose of analysis.

POISONS AND PHARMACY ACT, 1908, AND ORDERS, 1909.

Visits were made to 2 shops and premises in the Borough, in which insecticides containing poison were likely to be kept for sale, but no infringement of the Act was reported.

HEALTH EDUCATION.

Lectures.—During the year Dr. John Hall, M.A., Lecturer-Organiser to the Merseyside Boroughs Health Education Committee, has given 63 lectures to audiences totalling 5,965. This is a considerable increase both in number of lectures and of persons attending, and is indicative of a growing appreciation on the part of the public for authoritative information on health matters. Dr. Hall now lectures regularly to a number of such organisations as church societies and juvenile clubs, and has so many requests from similar bodies that it is becoming a matter of some difficulty to accept all the invitations.

Magazine.—2,200 copies of “Better Health” have been distributed each month through the schools and in other ways.

Cinematograph.—Use was made of the projector at the North Health Clinic on a few occasions during the latter part of the year.

Health Exhibition.—In September the Merseyside Boroughs Health Education Committee arranged a Health Exhibition in St. George's Hall, Liverpool. With the co-operation of various voluntary bodies such as the British Social Hygiene Council and the National Council for Maternity and Child Welfare a comprehensive demonstration of the many activities of the public health services was arranged, and suitable talks by local doctors and others were given. The exhibition, for which an entrance charge of 6d. was made, lasted for a week, and was attended by over 13,000 people. A party of 200 Birkenhead school children was specially conducted round the hall one morning before the official opening time.

MATERNITY AND CHILD WELFARE.

ADMINISTRATIVE ARRANGEMENTS.

Infant welfare and postnatal clinics are held at Hamilton Square, St. Paul's Road, Mount Grove, and at the North Health Clinic in Park Road West. The Hamilton Square Clinic was opened in 1916; the St. Paul's Road Clinic in 1919; the Mount Grove Clinic in 1923; and the North Health Clinic at the end of 1929.

Staff.—The executive staff engaged on maternity and child welfare work at the end of the year consisted of Dr. Deacon (Hamilton Square antenatal and postnatal clinics); Dr. Williams (North antenatal and postnatal clinics); Dr. Foster (Mount Grove postnatal clinic); and Dr. Woodeson (St. Paul's Road postnatal clinic).

In addition to the part-time services of the Chief Health Nurse and the whole time service of the Inspector of Midwives, the equivalent of the whole time of seven nurses was available for infant welfare work during the year.

INSPECTION AND SUPERVISION OF MIDWIVES.

Work under this section is concerned with the administration of the Midwives' Acts, 1902 and 1918; the visiting of the homes of midwives, inspecting their instruments, etc., advising them on the details of their work and on their duties as set out in the above Acts, and in the rules issued by the Central Midwives' Board.

Number of midwives.—During the year 1931, 74 midwives entered their names on the local register as practising in the Borough. 7 midwives left the district during the year and their names have been removed from the register accordingly. 3 midwives gave notice of change of addresses.

Of the 74 midwives, 70 were trained and 4 untrained.

Number of cases attended by midwives.—The cases attended by midwives alone (no doctor being in attendance) numbered 2,347; over three-quarters of the total births in the Borough.

Visits of inspection.—The Inspector of Midwives paid 139 quarterly and 82 special visits of inspection. She also paid 32 visits to the homes of midwives, but was unable to obtain access.

Interviews in office.—49 midwives were interviewed during the year.

Cases of puerperal fever and puerperal pyrexia in practice of midwives.—The inspector investigated 1 case of puerperal fever and 6 cases of puerperal pyrexia. 4 deaths were certified during the year as having been due to these conditions.

Cases requiring medical help.—469 cases were notified by midwives in which medical aid had been called in, as against 454 last year. The inspector made 262 special enquiries regarding cases requiring medical help.

Notifications received from midwives.—30 cases of stillbirths were notified; 8 cases were notified of infants receiving artificial feeding; 4 cases were notified in which deaths (3 infants and 1 mother) had occurred in the practice of midwives.

Supply of silver nitrate to midwives.—Supplies of a colloid preparation of silver nitrate are issued to midwives at cost price. No requests were made for this during the year.

Ophthalmia neonatorum.—20 cases were notified during the year.

Notified	Treated at home	Treated in hospital	Vision unimpaired	Vision impaired	Total blindness	Deaths
20	16	4	20	—	—	—

Employment of, or subsidy to, practising midwives by the local authority.—No practising midwives are employed or subsidised by the Birkenhead Local Supervising Authority.

HOME VISITING OF EXPECTANT MOTHERS, MOTHERS, AND YOUNG CHILDREN.

Home visiting.—The following is a summary of the visits paid by the health nurses in connection with expectant mothers, mothers, and young children:—

- 2901 routine first visits were paid to infants.
- 3543 routine revisits were paid to infants under 1 year.
- 11542 routine visits were paid to children over 1 year and under 5 years old.
- 31 first visits and 7 revisits were paid in connection with the investigation of stillbirths.
- 20 cases of ophthalmia neonatorum were visited and kept under supervision.
- 98 first visits were paid to expectant mothers.
- 17 revisits were paid to expectant mothers.
- 110 visits were made in connection with deaths of infants.
- 3980 visits were made in connection with miscellaneous matters.

POSTNATAL CLINICS.

The main features of the work carried out at these clinics were set out in my annual report for 1923.

At the end of the year the clinics were being held as follows:—

Hamilton Square clinic: Monday and Wednesday afternoons, 2 to 5 p.m.

St. Paul's Road clinic: Tuesday afternoon, 2 to 5 p.m.

Mount Grove clinic: Friday afternoon, 2 to 5 p.m.

North clinic: Wednesday and Thursday afternoons, 2 to 5 p.m.

The following table gives an indication of the work done at the clinics during the year:—

	Hamilton Sq. (100 sessions)		St. Paul's Road (68 sessions)		Mount Grove (50 sessions)		North (101 sessions)	
	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits	1st visits	Re- visits
Attendances made by infants under 12 months	393	5625	212	2513	203	2424	381	4179
Attendances made by children aged 1—2 years.....	9	1275	14	499	12	568	28	747
Attendances made by children aged 2—5 years.....	24	623	6	214	39	291	46	447
Examinations of children by Doctor.....	421	7042	202	1854	208	1511	418	3056
Mothers advised by Doctor re- garding their own health...	218	5	160	27	122	9	233	6

Voluntary workers—I have again to express appreciation of the valuable services given at the various clinics by voluntary workers, who give up a great deal of their time for this purpose.

Supply of Milk.—Dried milk was sold at the clinics to suitable cases.

During the year supplies of milk were given free under the Milk (Mothers and Children) Order, 1919, to

398 expectant mothers
108 nursing mothers
406 children.

Milk is given only to—

- (a) Nursing mothers who are actually suckling their children ;
- (b) Expectant mothers in the last three months of pregnancy ;
- (c) Children up to twelve months whose mothers are unable to nurse them ;

and to these only when the doctors at the clinics have satisfied themselves, by a medical examination of the cases on whose behalf the applications have been made, that the supply is essential on grounds of health.

ANTENATAL CLINICS.

As has been previously stated, antenatal clinics were held throughout the year, twice weekly (Tuesday morning, 9.30 a.m. to 12.30 p.m. and Thursday afternoon, 2 to 5 p.m.) at Hamilton Square. Clinics were held on 152 occasions ; the number of patients dealt with being 831 and the total number of attendances made being 4,089. Of this total 104 patients, carried over from 1930, made 413 and once weekly (Monday afternoon, 2 to 5 p.m.) at the North Clinic. attendances.

Condition with regard to pregnancy.—The condition with regard to pregnancy of the 727 new cases at the time of their first visit was as follows:—

- (a) 198 were in their first pregnancy.
- (b) 421 were in their second or subsequent pregnancy (154 of these patients had attended the clinic during a

previous pregnancy; 44 during two previous pregnancies; 24 during three previous pregnancies; 5 during four previous pregnancies; and 6 during six previous pregnancies.

(c) 108 were not pregnant.

Abnormalities.—The abnormalities or diseases found to be present in the new cases who attended the clinics during 1931 were as follows:—

(a) **Women who came to the clinics in their first pregnancy**

Abnormality or disease.	No. of cases
Venereal diseases	8
Tuberculosis.....	1
Albuminuria	1
Small pelvic measurements.....	1
Eclampsia (died).....	1

(b) **Women who came to the clinics in their second or subsequent pregnancy**

Abnormality or disease.	No. of cases
Venereal diseases	20
Albuminuria.....	6
Breech presentations.....	5
Cancer hysterectomy	1
Tuberculosis	1
Other defects ...	2

Progress of pregnancies.

- (a) Of the 198 women whom came in their first pregnancy
 145 were delivered before the end of 1931, having 79 boys and 67 girls (including 1 set of twins and 4 stillborn children).
 6 left the district
 44 were not delivered before the end of the year.
 2 had miscarriages
 1 woman died.
- (b) Of the 421 women in their second or subsequent pregnancy
 285 were delivered before the end of the year, having 170 boys and 120 girls (including 5 sets of twins and 16 still-born children)
 10 had miscarriages
 24 left the district
 102 were not delivered before the end of the year

Attendances at clinics.—Below are set out the details of attendances at the clinics—

HAMILTON SQUARE CLINIC.

(103 Sessions).

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1930	Total
Patients	178	340	87	91	696
Attendances	812	2048	135	383	3378

NORTH CLINIC.

(49 Sessions).

	First pregnancy	Subsequent pregnancy	Non-pregnant	From 1930	Total
Patients	20	81	21	13	135
Attendances	122	494	65	30	711

Maternity outfits.—5 outfits were lent out and returned during the year.

ARTIFICIAL SUNLIGHT TREATMENT.

Artificial sunlight treatment was given to cases attending at the North Health Clinic. 76 sessions were held during the year. 88 attended for the first time. Treatment was given on 1,341 occasions; Dr. Foster being in charge of this work.

INFANT LIFE PROTECTION.

At the end of the year the names of 44 children were entered on the register in accordance with the provisions of Part I of the Children Act, 1908, as having been taken by persons to keep for reward. 7 children were in St. Faith's Home, and 37 in charge of foster parents at private dwellings.

The Health Nurses paid 7 first visits and 94 revisits to these children.

OTHER PROVISION MADE BY THE LOCAL AUTHORITY.

Cases dealt with at Maternity Hospital.—During the year 14 cases were admitted into the Maternity Hospital under the terms of the agreement; the number of bed days being 281.

Cases dealt with by the Birkenhead District Nursing Society.—During the year the Society's nurses paid 593 visits to 31 cases, under the agreement between the Society and the Corporation. In addition 595 visits were paid to 62 cases in children under 5 years of age not included in the agreement.

Cases of confinements attended by medical practitioners.—In 223 cases where doctors were called in to difficult cases of confinement the

doctors' fees were paid by the Corporation under the provisions of the Midwives' Act, 1918. Recovery of the fees paid was made in 22 cases.

Cases of temporarily necessitous cases attended by midwives.—In 59 cases where midwives attended temporarily necessitous cases of confinement the midwives' fees were paid by the Corporation under the provisions of the Maternity and Child Welfare Act, 1918. Recovery of the fee was made in one case.

AGENCIES ASSISTED BY THE LOCAL AUTHORITY.

The Corporation gives financial support to certain institutions, etc., for general services rendered in connection with maternity and child welfare work.

Birkenhead and Wirral Invalid Children's Association.—Arrangements are made by this association to send children to convalescent homes, and to provide massage treatment for cases of infantile paralysis, etc. During the year 1931, 22 children were sent to convalescent homes by the Association.

St. Faith's Home for Mothers and Babies.—Here accommodation is provided for unmarried mothers and their children—18 cots for babies and 12 beds for mothers. The number of cases admitted to the Home during the year was as follows:—

Expectant mothers	13
Mothers and babies	1
Babies	20

Birkenhead Maternity Hospital.—There are 31 beds provided at the hospital, including 3 isolation and 2 labour beds. The number of cases admitted during the year was 447.

4 beds are provided for delicate babies. 26 babies were admitted during the year.

At the maternity and child welfare clinic held in connection with the hospital the following attendances were made during the year:—

Antenatal clinic: 1st visits 395; Revisits 2,030.

Postnatal clinic: children under 1 year—

1st visits 291; Revisits 2,078.

children 1—5 years—

1st visits —; Revisits 131.

St. Elizabeth's Convent.—At the maternity and child welfare clinic held here in connection with this Institution the following attendances were made during the year—

Antenatal clinic: 1st visits 53; Revisits 32.

Postnatal clinic: children under 1 year—

1st visits 139; Revisits 847.

children 1—5 years—

1st visits 49; Revisits 570.

The grants made by the Corporation to the above voluntary associations providing maternity and child welfare services under section 101 of the Local Government Act 1929 are as follows:—

	£
Birkenhead and Wirral Invalid Children's Association	40
St. Faith's Home for Mothers and Babies	650
Birkenhead Maternity Hospital—	
(a) Hospital treatment of delicate babies	100
(b) Infant Welfare Centre	90
(c) District midwifery	22
St. Elizabeth's Convent	50

AGENCIES NOT PROVIDED OR ASSISTED BY THE LOCAL AUTHORITY.

Other agencies whose work in Birkenhead touches the welfare of mothers and infants, but which are not provided or assisted by the Birkenhead Corporation, are the following:—

The Birkenhead and Wirral Children's Hospital.

The Charity Organisation Society.

The Society for the Prevention of Cruelty to Children.

The Gynæcological Clinic at the General Hospital.

NURSING HOMES.

1 new application for registration was made during the year, and granted.

1 registered Nursing Home was closed voluntarily during the year
No orders were made cancelling registration.

Applications were received and granted for exemption from registration—from the Birkenhead General Hospital, the Birkenhead and Wirral Children's Hospital, and the Birkenhead Maternity Hospital.

The total number of Nursing Homes registered in the Borough at the end of the year was 11.

MATERNAL MORTALITY.

During 1931 the deaths of 4 women who died in the Borough from causes associated with pregnancy and childbirth were investigated by the Inspector of Midwives.

The causes of the deaths were as follows:—

Puerperal septicæmia	3
Collapse after labour	1

3 of the deaths took place in hospitals and 1 occurred at the home of the patient.

The ages at which deaths occurred were 22 years, 32 years, 37 years, and 44 years.

In 3 of the cases midwives were in attendance on the patients.

HEALTH OF SCHOOL CHILDREN

STAFF

The Medical Staff engaged in carrying out School Medical Service duties during the year consisted of Dr. Deacon, Dr. Williams, Dr. Foster and Dr. Ritchie.

Mr. P. Wilson Smith, L.D.S., Dental Surgeon, and Miss E. M. Warlow, L.D.S. and Mr. W. G. Walch, L.D.S., Assistant Dental Surgeons, have been responsible for dental inspection and treatment throughout the year.

MEDICAL INSPECTION AND TREATMENT (ELEMENTARY SCHOOLS)

(A) INSPECTION

Number of elementary schools and school children.—The number of elementary schools in the borough is:

Council Schools	20	
Voluntary Schools	18	Total 38

The recognised accommodation of these schools was :

Council Schools	15,764	
Voluntary Schools	11,491	Total 27,255

The average number of scholars on the rolls was :

Council Schools	13,144	
Voluntary Schools	9,798	Total 22,942

The average attendance was:

Council Schools	11,767	
Voluntary Schools	8,676	Total 20,443

Children inspected.—The following elementary school children were medically inspected during the year:

1. At Routine Inspections	7182
2. At Special Inspections in the ordinary schools	185
3. At Routine Inspections at the Claughton Road Council School	79
4. At the Myope Class	11
5. Candidates for School and Holiday Camps	537
6. As prospective entrants to the Birkenhead Institute, the Girls' Secondary School, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College and the Catholic Institute	358
7. As prospective entrants to the Claughton Road Council School for Mental Defectives	13
8. Under the Employment of Children Bye-laws	47
Total	8412

Re-examination of defective children.—During the year 1,746 re-examinations of defective children were made by the Assistant Medical Officers.

Co-operation of parents.—Parents attended at the examination of 5,386 (74.9 per cent.) of the 7,182 children dealt with at routine inspections.

Attendance of parents at these examinations still continues to be satisfactory.

1922	59.2%
1923	60.4%
1924	62.9%
1925	66.7%
1926	68.1%
1927	70.2%
1928	71.2%
1929	74.4%
1930	76.4%
1931	74.9%

Vaccination.—In the ordinary inspections children were examined as to vaccination marks. Of the 7,182 children examined

1715 (23.9%) showed no marks
2857 (39.8%) showed one mark
778 (10.8%) showed two marks
211 (2.9%) showed three marks
1621 (22.6%) showed four or more marks

The following figures show the percentage of infants vaccinated year by year during the last ten years :

Year	Percentage
1922	80.6
1923	78.2
1924	78.9
1925	77.1
1926	76.6
1927	78.6
1928	79.3
1929	77.9
1930	76.8
1931	76.1

Infectious diseases.—Enquiry was made at each inspection as to the infectious diseases from which the children had suffered in the past. The information elicited is summarised in Table S 6.

Defects found requiring medical or dental treatment.—Out of the 7,367 children inspected at routine and special inspections, 834 were found to have defects requiring medical attention. The defects found were as follows :

<i>Skin Diseases</i>	Code Groups	Special Cases
Ringworm	3	2
Scabies	9	3
Impetigo	8	7
Other diseases	10	8
<i>Eye Defects</i>		
Defective vision and squint (for further details see Table S 2)	271	50
External eye disease	26	5
<i>Ear Defects</i>		
Defective hearing	5	2
Ear disease	27	7

Nose and Throat Defects

Enlarged tonsils	83	6
Enlarged tonsils and adenoids	9	—
Adenoids	6	—
Other defects	8	—

<i>Teeth Defects</i>	144	3
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Pulmonary Tuberculosis

Definite	—	—
Suspected	3	1

Non-Pulmonary Tuberculosis

Glands	1	—
Other forms	1	1

<i>Other Defects or Diseases</i>	149	38
--	-----	----

A full statement regarding the defects found, setting out the number of defective children, is given in Table S 2. In Table S 5 the defective children are classified according to the schools attended.

(B) TREATMENT

The parents or guardians of all children found at routine examinations to be defective are informed immediately of the need for medical advice or treatment and are urged to consult their family doctors regarding the defects in question. They are later visited at their homes by the Health Nurses, the Assistant Medical Officers making periodical re-examinations in the schools to ascertain what action has been taken.

During the past year the Health Nurses paid 940 visits to the homes of defective children in connection with "following up"—825 first visits and 115 re-visits; and 1,746 re-examinations of defective children were made by the Assistant Medical Officers. In addition, the Nurses paid 34 special visits.

Treatment of children found, at medical inspections held during 1931, to be suffering from defects which required medical attention.—

As has been stated above, 834 out of 7,367 children examined at routine and special inspections in elementary schools during 1931 were found to be suffering from defects requiring medical attention; out of these 834 children suffering from defects, 174 or 20.8 per cent. received treatment before the end of the year.

Details of the various types of ailment treated will be found in Table S 4.

Treatment at the Eye Clinic.—Children who were found by the Assistant Medical Officers to require spectacles, and whose parents were not in a position to secure the necessary attention privately, were seen at the Eye Clinic by Dr. Williams; Mr. Norman Wilson as usual assisting with the work.

The large number of *re-examinations* carried out during the year is worthy of note. A certain proportion of these cases attended on the instructions of Dr. Williams given at the Eye Clinic or of the Assistant Medical Officers at routine inspections in schools; but a large number were brought by parents of their own initiative for the purpose of having glasses repaired, or because they appreciated the importance in certain types of visual defect of periodical re-examination.

Care is taken to secure that, so far as can be judged without any elaborate system of investigation, only those parents who are not in a position to obtain private attention to their children's eyes are allowed to avail themselves of the facilities provided at the clinic.

During the year 457 new cases were examined, 645 children attended for re-examination, and 569 pairs of spectacles were supplied. The total cost of all the spectacles which were ordered during the year was £120 11s. 10d., of which the parents were required to pay £102 18s. 0d. The total sum collected during the year (including arrears from previous years) was £102 7s. 5d.

The following is a summary of the visual defects of new cases for whom spectacles were prescribed during the year :

First Eye	Second Eye
Hypermetropia	Hypermetropia .....130
Hypermetropia	Hypermetropic astigmatism 38
Hypermetropia	Mixed astigmatism 2
Hypermetropic astigmatism	Hypermetropic astigmatism 54
Hypermetropic astigmatism	Mixed astigmatism 7
Myopia	Myopia 45
Myopia	Normal 4
Myopia	Myopic astigmatism 12
Myopic astigmatism	Myopic astigmatism 14
Myopic astigmatism	Mixed astigmatism 8
Mixed astigmatism	Mixed astigmatism 10
324	

75 children who were submitted to refraction were found to be emmetropic and not in need of spectacles.

The following conditions were also recorded among the new cases who attended the clinic :

Corneal nebulae	9
Coloboma of iris and choroid	1
Coloboma of choroid	2
Congenital cataract	1
Cataract	1
Old iritis	1
Injury	3
Optic atrophy	1
Amblyopia	19

The new cases of strabismus noted during the year were as follows :

Convergent: Right eye, 35; left eye, 50; alternating, 13.
Divergent: Right eye, 2; left eye, 1.

Blind and partially blind children

(1) Totally blind children

At the beginning of 1931 there were 7 *totally blind* children of school age on the register. During the year the name of 1 child was removed, leaving 6 at the end of the year. Of these 6 children, 4 were in attendance at certified schools for the blind, 1 was awaiting admission, and 1, who suffers from tuberculosis, was at home.

(2) Partially blind children

At the beginning of 1931 there were 46 *partially blind* children of school age on the register. During the year the names of 9 children were removed (8 on their becoming over school age, and 1 on account of removal from the town), and 12 new cases were added. At the end of 1931 there were 49 cases on the register. Of these children 14 boys and 23 girls were attending ordinary schools. 7 boys and 5 girls were in attendance at the myope class held at Park Road Council School.

Myopia	9
Myopic astigmatism	23
Corneal nebulae	8
Hypermetropic astigmatism and nystagmus	3
Hypermetropia and nystagmus	3
Optic atrophy	2
Cataract	1
	<hr/>
	49
	<hr/>

Of the 20 children in the myopic group who were on the register in 1930, and who were re-examined during 1931, the visual condition of 3 had grown worse.

Treatment at the General School Clinic.—Details of the work of this clinic, where cases of external eye disease, ear inflammation, skin disease, etc., are treated, will be found in Table S 4.

The number of children who received treatment at the clinic was 2,260; the total attendances numbered 12,184.

Treatment of otitis media by zinc ionisation.—During the year 17 children received treatment on 49 occasions for an average of fifteen minutes per child on each occasion. 6 of these children were apparently cured, the condition of 6 was improved, and 5, who were cases of old standing, showed little or no improvement.

Treatment of orthopædic defects.—In November, 1925, a municipal orthopædic clinic was opened at the premises then occupied by the Birkenhead and Wirral Invalid Children's Association in Albion Street, Birkenhead. Later the clinic was removed to the Association's new premises at 43 Hamilton Square. During the past five years there has been considerable development in the work of orthopædic treatment; the main features of this are dealt with below.

1. *Examinations carried out at the clinic by the orthopædic surgeon.*—At the clinic the orthopædic surgeon has attended on 21 occasions during the year. The after-care sister made 78 attendances.

The clinic deals with all forms of crippling disease in children. The cost of the clinic is distributed as follows :

- (a) Tuberculous cases (all ages): Health Committee.
- (b) Non-tuberculous cases under school age: Maternity and Child Welfare Committee.
- (c) Non-tuberculous cases of school age. Education Committee.

During 1931, 127 new cases were dealt with, as compared with 144 in the previous year :

Tuberculous cases	9
Non-tuberculous cases—	
Under school age	69
Of school age	49
Over school age	—
	<hr/>
	127

There were 578 re-examinations made, as compared with 551 in 1930 :

Tuberculous cases	76
Non-tuberculous cases—	
Under school age	182
Of school age	311
Over school age	9
	<hr/>
	578

The average number of cases seen by the surgeon per session was 33.

In the following table Dr. Hartley Martin sets out a classification of cases dealt with, and shows the results of treatment:

Diagnosis	Remaining 1930	1931 New cases			Remaining 1932			Discharges 1931					Died
		School age			School age			Cured	Relieved	Left district	Refused treatment	Unsuitable	
		Under	Of	Over	Under	Of	Over						
Infantile Paralysis	28	.	2	...	3	26	1	...	...	..	...	..	...
Spastic Paralysis	24	1	1	...	4	20	1	...	...	1	...	...	...
Rickets	88	20	10	..	45	50	...	18	...	5	...	...	...
Osteitis and Arthritis :													
(<i>a</i>) Tuberculous	43	...	7	...	1	40	5	4	...	...	...	...	...
(<i>b</i>) Non-Tuberculous ..	4	...	3	...	1	5	...	1	...	..	...	...	...
Congenital Deform.	27	2	1	...	9	18	...	1	...	2	...	...	...
Acquired Deform.	63	18	20	...	30	42	...	23	...	2	4	....	...
Diagnosis	3	19	18	...	2	...	...	...	...	....	..	37	1
Totals	280	60	62	...	95	201	7	47	...	10	4	37	1

2. *Massage and remedial exercises.*—Massage and remedial exercises as prescribed by Dr. Martin were provided by the Invalid Children's Association. (There are two whole-time masseuses on the Association's staff.)

Attendances for massage and remedial exercises were made by clinic cases as follows:

Tuberculous cases	—
Non-tuberculous cases—	
Under school age	722
Of school age	2667
Over school age	11

In addition to the above, 2,219 attendances were made by non-clinic cases (that is to say, cases sent to the Association by orthopædic surgeons attached to voluntary hospitals, etc.).

3. *Artificial sunlight*.—A carbon-arc lamp is installed at the premises of the Invalid Children's Association. Selected cases attended for the administration of this form of treatment by the Association's staff, as follows:

Clinic cases (sent by Dr. Martin)		Attendances.	
Non-tuberculous cases—		}	190
Of school age	14		
Under school age	5		
Non-clinic cases	—		1358

4. *Surgical apparatus—splints, etc.*—These are provided by the Association, the number of cases dealt with during the past year being as follows:

Clinic cases	119
Non-clinic cases	97

5. *Milk, tonics, convalescence, after-care*.—Most useful work is also done by the Association in providing milk, tonics, etc., for patients for whom these have been prescribed by the orthopædic surgeon and other doctors, and in following up and helping patients who have passed through the stage of active treatment.

	Clinic cases	Non-clinic cases
Children supplied with milk	155	581
Children supplied with tonics	180	368
Children sent to convalescent homes and country hospitals	73	91

6. *Children's Hospital, Leasowe*.—Of the 425 cases that have been on the register of the orthopædic clinic and regarded as suitable for treatment during the past year, 43 (or 10.1%) required hospital treatment and were admitted to the Children's Hospital, Leasowe. These cases comprise :

	Cases	Stay in Hospital Days	
		Min.	Max.
Congenital deformities	9	2	347
Rickets	28	42	324
Spastic paralysis	1	357	357
Acquired deformities	5	63	112

The total number of days in hospital was 4,842 (13.2 beds occupied throughout the year).

In addition to the above, 23 cases were referred to the hospital for X-Rays examination, and 23 cases for the application of plaster of Paris splints.

7. *Thingwall Sanatorium*.—At this institution children suffering from orthopædic defects of tuberculous origin are treated. Many are cases who have passed through a course of treatment at Leasowe Hospital, or are awaiting admission to that institution.

Treatment of enlarged tonsils and adenoids.—Operations were performed at the Birkenhead Infirmary upon 143 children under the Committee's scheme for the provision of this treatment.

Treatment of uncleanness.—The average number of visits paid during 1931 by the Health Nurses to each school in the Borough was 19; the total examinations numbering 62,452.

The number of individual children found by the Health Nurses to require attention was 3,251, as compared with 3,291 in 1930. In every case the parents were informed. In 22 cases of persistent neglect notices were served on the parents; 8 of these cases were compulsorily cleansed by the Health Nurses. The Nurses paid 57 visits to the homes of children (23 first visits, 34 re-visits).

It should be borne in mind that the standard of cleanliness set in Birkenhead is very high; a large proportion of the children reported as "requiring attention" being cases where only a few nits are present.

DENTAL INSPECTION AND TREATMENT (ELEMENTARY SCHOOLS)

(A) INSPECTION

Scope of past year's work.—The work of dental inspection and treatment was concerned with the inspection and treatment of children born in the years 1919, 1920, 1921, 1922, 1923, 1924 and 1925.

Number inspected.—10,353 children were dentally inspected during the year as follows:

Aged five years	543
Aged six years	1378
Aged seven years	1493
Aged eight years	1467
Aged nine years	1552
Aged ten years	1705
Aged eleven years	1642
Aged twelve years	573
	<hr/>
	10353
	<hr/>

The figures for the preceding year (1930) were :

Aged four years	119
Aged five years	1512
Aged six years	1774
Aged seven years	1937
Aged eight years	1918
Aged nine years	2069
Aged ten years	2109
Aged eleven years	610
	<hr/>
	12048
	<hr/>

Number requiring dental treatment.—Of the 10,353 children inspected, 7,568 (73.1%) were selected as requiring treatment, the parents being advised to obtain this treatment privately, or, if unable to do this, at the Dental Clinic.

Cleanliness of teeth.—The children examined were classified according to cleanliness of teeth as follows:

Clean	5713
Fairly clean	3614
Dirty	1026
	<hr/>
	10353
	<hr/>

Condition of gums.—The following figures show the condition of the gums of the children examined:

Gums healthy	7593
Gums inflamed	1764
Gums septic	996
	<hr/>
	10353

Condition of bite.—This was found to be as set out below:

Bite good	6505
Bite fair	2859
Bite bad	989
	<hr/>
	10353

(B) TREATMENT

Notices were sent to the parents of the 7,568 children found to require dental treatment, with the following results :

Refused to have treatment done or did not reply.....	571	(7.5%)
Stated that treatment would be obtained privately...	1550	(20.5%)
Requested treatment at the Dental Clinic	5447	(72.0%)
	<hr/>	
	7568	

Treatment at the Dental Clinic.—Of the 5,447 children for whom treatment at the clinic was requested

4081 were treated before the end of the year
901 did not attend when sent for
465 were awaiting treatment at the end of the year

5447

Besides the above 4,081 children treated at the clinic following on inspections held in 1931, the following also received treatment : 1,137 who had been inspected in 1930 and had not been treated before the end of that year, 2,002 who were brought by parents on their own initiative, 38 special cases from the Cloughton Road Council School, and 30 special cases from Thingwall Sanatorium. The total number of children treated at the clinic during 1931 was therefore :

Following on 1930 inspections	1137
Following on 1931 inspections	4081
Brought by parents on their own initiative.....	2002
Special cases	68
	<hr/>
	7288

Details of treatment carried out.—This was as follows:

Temporary teeth filled	310
Temporary teeth extracted	9666
Permanent teeth filled	4122
Permanent teeth extracted	1703
Total fillings	4462
Total extractions	11369
Anæsthetics—general	—
local	5792
Scalings	2634
Dressings	1053

The total number of attendances at the clinic numbered 8,886, and the number of treatments completed during the year was 6,854; 2,404 parents paid 1s. each and 147 parents 6d. each for treatment, the total amount paid being £123 17s. 6d.

MEDICAL INSPECTION AND TREATMENT (SECONDARY SCHOOLS AND CONTINUATION SCHOOLS)

The powers and duties of local education authorities with regard to medical inspection and treatment in secondary schools and continuation schools are set out in Section 80 of the Education Act, 1921.

Schools at which medical inspection is carried out.—Medical inspection is arranged for at the following schools:

	No. on Roll.
(a) Provided by the Local Education Authority—	
The Birkenhead Institute (Boys)	501
The Girls' Secondary School	403
Park High School (Boys)	309
Rock Ferry High School (Boys)	377
(b) Not provided by the Local Education Authority—	
The Higher Tranmere High School for Girls	259
The Convent Secondary School	285

There are no continuation schools provided by the local education authority.

Scope of medical inspection.—The existing arrangements provide for the examination once in each year of every child in the schools inspected; and for the re-examination of children found to be defective.

The opinion of the Board of Education in this connection is expressed in Circular 1153: "In view of the many defects that may arise during the critical period of adolescence, the Board attach great importance to arrangements being made for all pupils to come annually, as a matter of routine, under medical supervision."

Birkenhead Institute.—At the annual inspection 436 boys were inspected. 43 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	19
Defective vision and squint	18
Other defects	6

Girls' Secondary School.—At the annual inspection 399 girls were inspected. 66 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	46
Defective vision	13
Heart defects	5
Nose and throat defects	4
Other defects	2

Rock Ferry High School.—At the annual inspection 332 boys were inspected. 38 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	21
Defective vision	11
Nose and throat defects	4
Ear defect	1
Other defects	3

Park High School.—At the annual inspection 295 boys were inspected. 14 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	6
Defective vision	5
Other defects	4

Higher Tranmere High School for Girls.—At the annual inspection 72 girls were inspected. 3 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective vision	3
------------------------	---

Convent F.C.J.—At the annual inspection 222 children were inspected. 22 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	7
Defective vision	12
Heart defect	1
Other defects	2

Claughton Road Council School for Mentally Defective Children.—

The average number on the rolls during the year was 93, and the average daily attendance was 79.

A routine inspection of all scholars attending the school was carried out. 79 children were examined, of whom 11 were found to have defects requiring medical or dental advice, the defects found being as follows:

Defective teeth	9
Defective vision	2

In accordance with the revised arrangements for ascertainment, 9 examinations of children suspected to be mentally defective were held at various schools during the year by the Assistant Medical Officers. The results of these examinations are set out below:

Total number examined—Boys	6	
Girls	7	
	<hr/>	13
Number certified as mentally defective—Boys	2	
Girls	2	
	<hr/>	4
Number recommended to continue in attendance at ordinary Elementary Schools—Boys ..	4	
Girls	4*	
	<hr/>	8

*One of these suffered from defective speech and was admitted to the Class for Stammering Children

Number found to be epileptic and recommended for admission to residential institution for epileptics—Girl	1
---	---

30 children left the school during the year.

(a) on reaching the age of 16 years	22*
(b) before reaching the age of 16 years	
Transferred to elementary schools	2
Fit for work	2
Left district	2
Employed at home	2

*15 of these cases were notified to the Local Authority under the Mental Deficiency Acts.

Of the 2 children who left to take up work

- 1 is employed in a laundry;
- 1 is employed as an errand boy.

School dinners have been provided throughout the year at a cost to the parents of 2d. per day.

Daily average supplied	65
Total cost for the year	£109

The weekly menu was :

- Monday*.....Soup; boiled suet pudding.
- Tuesday*.....Meat and vegetable stew; milk pudding.
- Wednesday*...Meat pie and vegetables.
- Thursday*.....Hotpot; milk pudding.
- Friday*.....Beef en casserole and vegetables; suet dumpling

The school continues to have the use of the recreation ground in Slatey Road during school hours and the facilities thus afforded for school activities in the open air are greatly appreciated.

School camp at Gronant.—29 boys and 29 girls enjoyed a fortnight's holiday at the Bungalow at Gronant, near Prestatyn, in June. As in preceding years, the parents contributed on an average 5s. per child, which, with the sum of £33 2s. 6d. raised by the School Staff, provided a complete camp outfit per child, food for the four weeks, medical attention, cook's wages, laundry, fuel and cleaning expenses; the total cost being £42 7s. 6d.

The rent of the Bungalow, travelling and insurance expenses, amounting to £28 1s. 5d., were defrayed by the Education Committee.

Total cost of 4 weeks' holiday	£70	8	11
Cost per child per week	12	0	

Voluntary After-Care Association.—The Voluntary After-Care Association continues to keep in touch with the non-notifiable pupils who have passed out of the school; at the end of the year 1931, 310 cases had been visited and reported upon. After 9½ years of following up, much reliable information concerning the after careers of the school's former pupils is now available.

Provision of meals.—An average number of 622 children received meals each day, the total number of meals provided during the year being 158,655. Meals were supplied five days per week, with the exception of Bank and Public Holidays.

MISCELLANEOUS

Examination of entrants to the Girls' Secondary School, the Birkenhead Institute, Park High School, Rock Ferry High School, Higher Tranmere High School for Girls, The Convent Secondary School, St. Francis Xavier's College, and the Catholic Institute.—During the year 358 elementary school children were examined with

a view to their admission to the above schools. 74 were found to require treatment for 78 defects, the latter being as follows :

Defective teeth	34
Defective vision and squint	21
Nose and throat defects	3
Heart defects	2
Deformities	1
Other defects	17

School Camp.—About 250 children whom the Director of Education had selected as being suitable cases to attend the School Camp held at Dyserth in May were medically examined. After numerous re-examinations by Assistant Medical Officers and cleansing by the Health Nurses of a number of the children, 205 were eventually passed as medically fit, and attended the camp. Two Health Nurses stayed at the camp for the purpose of giving first aid or carrying out any necessary treatment in connection with minor ailments.

Classes for stammering children.—Two examinations, covering a total of 51 children, with a view to admission to or withdrawal from these classes were made.

TABLE S 1

Return of Medical Inspections during 1931 (see note *a*)

A.—ROUTINE MEDICAL INSPECTIONS

Number of Code Group Inspections (see note *b*)

Entrants	2574
Intermediates	2283
Leavers	2320
Total	7182

Number of other routine inspections (see note *c*) 90

B.—OTHER INSPECTIONS

Number of special inspections (see note <i>d</i>).....	3824
Number of re-inspections (see note <i>e</i>)	4956
Total	8780

NOTES ON TABLE S 1

(a) The return refers to a complete calendar year.*(b)* This heading relates solely to the routine medical inspection of the three ordinary age groups, *i.e.*, to medical inspections carried out:

- (i) in compliance with Article 17 of the Consolidated Regulations relating to Special Services—Grant Regulations No. 19;
- (ii) on the school premises (or at a place specially sanctioned by the Board);
- (iii) for the purpose of making a report on each child on the lines of the approved Schedule set out in Circular 582.

(c) Under this heading may be recorded *routine* inspections, if any, of children who do not fall under the three code age-groups, *e.g.*, *routine* inspections of a fourth age-group or of other groups of children, as distinct from those who are individually selected on account of some suspected ill-health for a "Special" Inspection.*(d)* A Special Inspection is a medical inspection by the School Medical Officer himself or by one of the Assistant Medical Officers on his staff of a child specially selected or referred for such inspection, *i.e.*, not inspected at a routine medical inspection as defined above. Such children may be selected during a visit to the school or may be referred for inspection by the teachers, health nurses, attendance officers, parents, or otherwise. It is immaterial for the purpose of this heading whether the children are inspected at the school or at the Inspection Clinic or elsewhere. If a child happens to come before the School Medical Officer for special inspection during a year in which it falls into one of the routine groups, its routine inspection is entered in Part A of Table S 1 and its special inspection in Part B. The inspection to be recorded under the heading of special inspections is only the first inspection of the child so referred for a particular defect. If a child who has been specially inspected for one defect is subsequently specially inspected for another defect, such subsequent inspection is recorded as a special inspection and not as a re-inspection.*(e)* Under this heading are entered the medical inspections of children who as the result of a routine or special inspection come up later on for subsequent re-inspection, whether at the school or at the inspection clinic. The first inspection in every case is entered as a routine or special inspection as the case may be. Every subsequent inspection of the same defect is entered as a re-inspection.

Nothing is included under the head of special inspections or re-inspections except such inspections as are defined above. Attendances for treatment by a nurse or for examinations by anyone other than a doctor on the staff of the School Medical Service are not recorded as medical inspections. If, however, at any such attendance, a child is also examined by a member of the authority's medical staff, this is recorded as a special inspection or re-inspection as the case may be, even if treatment is also given; but such attendance may also of course be recorded as an attendance for treatment.

TABLE S 2

A. Return of Defects found by Medical Inspection during the year ended 31st December, 1931.

Defect or disease (1)	Routine Inspections		Special Inspections	
	No. of defects		No. of defects	
	Requiring treatment (2)	Requiring to be kept under observation, but not requiring treatment (3)	Requiring treatment (4)	Requiring to be kept under observation but not requiring treatment (5)
<i>Malnutrition</i>	5	2	3	—
<i>Uncleanliness</i>	—	—	—	—
(See Table S 4, Group V.)				
<i>Skin</i> Ringworm—Scalp	2	—	28	—
..... Body	1	1	29	—
..... Scabies	9	1	94	—
..... Impetigo	8	—	335	—
..... Other diseases (non-tuberculous).....	10	—	179	—
<i>Eye</i> Blepharitis	14	4	58	—
..... Conjunctivitis	3	—	151	—
..... Keratitis	1	—	2	—
..... Corneal opacities	2	—	2	—
..... Defective vision (excluding squint)...	204	92	102	10
..... Squint.....	67	8	21	—
..... Other conditions	6	2	78	—
<i>Ear</i> Defective hearing	5	3	20	—
..... Otitis media	18	3	165	—
..... Other ear diseases	9	5	68	1
<i>Nose and throat.</i> Enlarged tonsils only	83	55	160	—
..... Adenoids only	6	4	11	—
..... Enlarged tonsils and adenoids.....	9	3	28	—
..... Other conditions	8	2	270	1
<i>Enlarged cervical glands (non-tuberculous)</i>	1	8	5	—
<i>Defective speech</i>	1	1	—	—
<i>Teeth</i> Dental diseases (see note a)	144	9	55	—
(See Table S 4, Group IV.)				
<i>Heart and circulation—</i>				
..... Heart disease—Organic	11	11	1	—
..... Functional	6	23	12	—
..... Anæmia	6	8	12	—
<i>Lungs</i> Bronchitis	21	11	80	—
..... Other non-tuberculous diseases	21	24	104	1
<i>Tuberculosis</i> ... Pulmonary—Definite	—	2	1	—
..... Suspected.....	3	—	3	—
..... Non-pulmonary—Glands	1	—	3	—
..... Spine	—	—	—	—
..... Hip	—	—	—	—
..... Other bones and joints	—	—	1	—
..... Skin	1	—	—	—
..... Other forms.....	—	—	—	—
<i>Nervous system.</i> Epilepsy	—	—	4	—
..... Chorea.....	4	2	10	—
..... Other conditions	3	4	5	—
<i>Deformities</i> Rickets	1	—	4	—
..... Spinal curvature	—	—	—	—
..... Other forms	9	4	9	—
<i>Other defects and diseases</i>	60	26	1665	3

TABLE S 2—Continued

B. Number of *individual children* (see note *b*) found at *routine* medical inspection to require treatment (excluding uncleanness and dental diseases)

Group. (1)	Number of children.		Percentage of children found to require treatment (see note <i>d</i>) (4)
	Inspected (see note <i>c</i>). (2)	Found to require treatment. (3)	
CODE GROUPS :			
Entrants	2574	196	7·6
Intermediates.	2288	168	7·3
Leavers	2320	205	8·8
Total (code groups)	7182	569	7·8
Other routine inspections	90	14	15·5

NOTES ON TABLE S 2.

(*a*) The figures included in this space refer to the findings of the Medical Staff and not those resulting from dental inspection in the schools by the School Dental Surgeon. The findings of the School Dental Surgeon are recorded in Table S 4 Group IV.

(*b*) No individual child is counted more than once in this part of Table S 2, *i.e.*, under B., even if it is found to be suffering from more than one defect.

(*c*) The figures in this column are the same as those given in Table S 1 A.

(*d*) The figure in this column is the percentage of the figure in column (3) of that in column (2).

TABLE S 3

Return of all exceptional children in the area (see note a)

Children suffering from the following types of Multiple Defect, <i>i.e.</i> any combination of Total Blindness (see note (b) (1)), Total Deafness (see note (d) (1)), Mental Defect, Epilepsy, Active Tuberculosis, Crippling (as defined in penultimate category of the Table), or Heart Disease.				Boys	Girls	Total
Total Blindness and Active Tuberculosis				1	—	1
Mental Defect and Crippling				1	1	2
These children are not in attendance at any school or institution.						
<i>Blind</i> (including partially blind) (see note b)	(i) Suitable for training in a school or class for the totally blind	At certified schools or classes for the blind		3	1	4
		At public elementary schools (see note c)		—	—	—
		At other institutions		—	—	—
		At no school or institution		2	—	2
	(ii) Suitable for training in a school or class for the partially blind	At certified schools or classes for the partially blind		7	5	12
		At public elementary schools (see note c)		14	23	37
		At other institutions		—	—	—
		At no school or institution		—	—	—
<i>Deaf</i> (including deaf and dumb and partially deaf) (see note d)	(i) Suitable for training in a school or class for the totally deaf or deaf and dumb	At certified schools or classes for the deaf		10	8	18
		At public elementary schools (see note c)		—	—	—
		At other institutions		—	—	—
		At no school or institution		—	—	—
	(ii) Suitable for training in a school or class for the partially deaf	At certified schools or classes for the deaf		—	—	—
		At public elementary schools (see note c)		1	—	1
		At other institutions		—	—	—
		At no school or institution		—	—	—
<i>Mentally defective</i>	Feeble-minded (cases not notifiable to the Local Control Authority.) (see note e)	At certified schools for mentally defective children		49	37	86
		At public elementary schools (see note c)		—	—	—
		At other institutions		—	—	—
		At no school or institution		—	—	—
<i>Epileptics</i>	Suffering from severe epilepsy (see note f)	At certified special schools for epileptics		1	1	2
		In institutions other than certified special schools		—	—	—
		At public elementary schools (see note c)		—	—	—
		At no school or institution		1	1	2
	Suffering from epilepsy which is not severe (see note g)	At public elementary schools (see note c)		—	1	1
		At no school or institution		—	—	—
<i>Physically defective</i> (see note i)	Active pulmonary tuberculosis (including pleura and intrathoracic glands).	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board		—	—	—
		At Certified Residential Open Air Schools		—	—	—
		At Certified Day Open Air Schools		—	—	—
		At Public Elementary Schools (see note h)		—	—	—
		At other institutions		—	—	—
		At no school or institution		2	2	4

TABLE S 3—Continued

<i>Physically defective (continued) see note i)</i>	Quiescent or arrested pulmonary tuberculosis (including pleura and intrathoracic glands).	At sanatoria or sanatorium schools approved by the Ministry of Health or by the Board	4	2	6
		At certified residential open air schools	—	—	—
		At certified day open air schools.....	—	—	—
		At public elementary schools	21	11	32
		At other institutions	1	1	2
		At no school or institution	2	5	7
	Tuberculosis of the peripheral glands.	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board.....	3	4	7
		At certified residential open air schools	—	—	—
		At certified day open air schools.....	—	—	—
		At public elementary schools (see note <i>h</i>).....	31	31	62
		At other institutions	1	—	1
		At no school or institution	—	2	2
	Abdominal tuberculosis.	At sanatoria or sanatorium schools approved by the Ministry of Health or the Board	2	9	11
		At certified residential open air schools	—	—	—
		At certified day open air schools....	—	—	—
		At public elementary schools (see note <i>h</i>)	32	17	49
		At other institutions	—	—	—
		At no school or institution	2	2	4
	Tuberculosis of bones and joints (not including deformities due to old tuberculosis).	At sanatoria or hospital schools approved by the Ministry of Health or the Board	5	8	13
		At public elementary schools (see note <i>h</i>).....	16	15	31
		At other institutions	1	—	1
		At no school or institution	1	1	2
	Tuberculosis of other organs (skin, etc.).	At sanatoria or hospital schools approved by the Ministry of Health or the Board.....	1	1	2
		At public elementary schools (see note <i>h</i>)	2	1	3
		At other institutions	—	—	—
		At no school or institution	1	2	—
	Delicate Children, <i>i.e.</i> , all children (except those included in other groups) whose general health renders it desirable that they should be specially selected for admission to an Open Air School. (See note <i>j</i> .)	At certified residential cripple schools	—	—	—
		At certified day cripple schools	—	—	—
		At certified residential open air schools	—	—	—
		At certified day open air schools	—	—	—
		At public elementary schools	14	30	44*
		At other institutions	—	—	—
		At no school or institution	—	—	—
	Crippled Children (other than those with active tuberculous disease) who are suffering from a degree of crippling sufficiently severe to interfere materially with a child's normal mode of life.	At certified hospital schools	1	—	1
		At certified residential cripple schools	—	—	—
		At certified day cripple schools	—	—	—
		At certified residential open air schools	—	—	—
		At certified day open air schools.....	—	—	—
		At public elementary schools (see note <i>k</i>)	10	11	21(7)
		At other institutions (see note <i>k</i>) ..	—	—	(3)
		At no school or institution (see note <i>k</i>)	1	2	—3

TABLE S 3—Continued

<i>Physically defective</i> (continued) (see note i)	Children with heart disease, <i>i.e.</i> , children whose defect is so severe as to necessitate the provision of educational facilities other than those of the public elementary school.	At certified hospital schools	-	-	-
		At certified residential cripple schools	-	-	-
		At certified day cripple schools	-	-	-
		At certified residential open air schools	-	-	-
		At certified day open air schools.....	-	-	-
		At public elementary schools (see note c).....	6	14	20
		At other institutions	-	-	-
		At no school or institution	4	7	11

*These figures must not be regarded in any way as complete. In the event of an open-air school being established, a rapid survey will be made and suitable cases selected.

NOTES ON TABLE S 3

(a) This Table is a return of all children in the area for whom the Local Education Authority are responsible and who (except in the case of children suffering from epilepsy which is not severe and certain classes of tuberculous and crippled children) have been ascertained to be blind, deaf, defective or epileptic within the meaning of Part V of the Education Act 1921. It is the statutory duty of every Local Education Authority formally to ascertain all defective children in their area irrespective of the actual provision now made for their instruction in Special Schools. It is assumed by the Board of Education that every authority will have a complete list of such children compiled from returns made continuously during the year and kept constantly up to date. In order to secure uniformity, authorities are requested to make up this Table from their list of defective children as it stands on the last day of each calendar year.

Children who are living in residential schools in the area but who come from other areas are not included in this Table; but children are included who are living in residential schools outside the area and who are being maintained there by the authority.

For the purpose of this Table no child is included whose defect has not been ascertained by the School Medical Officer or a medical member of the authority's staff.

The definitions of defective children as given in the Act are as follows—

A blind child is a child who is too blind to be able to read the ordinary school books used by children.

A deaf child is a child who is too deaf to be taught in a class of hearing children in an elementary school.

Mentally and physically defective children are children who, not being imbecile and not being merely dull and backward, are defective, that is to say, children who by reason of mental or physical defect are incapable of receiving proper benefit from the instruction in the ordinary public elementary schools, but are not incapable by reason of that defect of receiving benefit from instruction in such special classes or schools as under Part V of the Act may be provided for defective children.

Epileptic children are children who, not being idiots or imbeciles, are unfit by reason of severe epilepsy to attend the ordinary public elementary schools.

(b) For the purpose of this return the Board require that children who are blind within the meaning of the Act should be divided into two categories, *i.e.*, (1) those who are totally blind or so blind that they can only be appropriately taught in a school or class for totally blind children, and (2) those who though they cannot read ordinary school books, or cannot read them without injury to their eyesight, have such power of vision that they can appropriately be taught in a school or class for the partially blind.

It should be understood that children who are able by means of suitable glasses to read the ordinary school books used by children without fatigue or injury to their vision are not included in this Table.

(c) The Board emphasises the fact that it should be understood that none of the children in this Table (except children suffering from epilepsy which is not severe) should in fact be attending public elementary schools. When the heading is retained, it is merely because at present the insufficiency of Special

NOTES ON TABLE S 3—Continued

school accommodation makes it impossible to do better for some defective children than to allow them to attend the ordinary school. No space is left for the entry of children with infectious pulmonary tuberculosis attending public elementary schools, as these children should, of course, be promptly excluded from such schools.

(d) Children who are deaf within the meaning of the Act are classified for the purpose of this Table as (1) totally deaf or so deaf that they can only be appropriately taught in a school or class for the totally deaf, and (2) partially deaf, *i.e.*, those who can appropriately be taught in a school or class for the partially deaf.

(e) This category includes only those children for whose education and maintenance the Local Education Authority are responsible, and who are not eligible for notification to the Local Control Authority under the Mental Deficiency Act.

(f) In this part of the Table only those children are included who are epileptic within the meaning of the Act.

(For practical purposes the Board are of opinion that children who are subject to attacks of major epilepsy in school should be recorded as "severe" cases and excluded from ordinary public elementary schools.)

(g) In this part of the Table are entered the remainder of the epileptic children in the area, *i.e.*, children whose disease is of such a kind as not to unfit them for attendance at an ordinary public elementary school.

(h) Children with "open" tuberculosis are of course promptly excluded from public elementary schools.

(i) The exact classification of physically defective children is admittedly a matter of difficulty. Valuable information, however, will be obtained if School Medical Officers will record these defective children as accurately as possible under the selected sub-headings.

(j) Delicate children suffering from rheumatism should be included in this category even though it may be considered undesirable to send them to an Open Air School.

(k) The total under this heading is followed by a figure in brackets indicating the number of these children who should be receiving Special School education.

TABLE S 4

Return of Defects treated during the year ended 31st December, 1931
(see note a)

TREATMENT TABLE

Group I.—Minor Ailments (excluding uncleanness, for which see Group V)

Defect or disease (1)	Number of defects treated, or under treatment during the year		
	Under the Authority's scheme (see note b.) (2)	Otherwise (3)	Total (4)
<i>Skin</i> —Ringworm—scalp	23	1	24
body	25	2	27
Scabies	85	—	85
Impetigo	308	—	308
Other skin diseases	146	1	147
<i>Minor eye defects</i>	249	11	260
(external and other, but excluding cases falling in Group II.)			
<i>Minor ear defects</i>	209	8	217
(see note c)			
<i>Miscellaneous</i>	1101	37	1138
(e.g., minor injuries, bruises, sores, chilblains, &c.)			
Total ..	2146	60	2206

Group II.—Defective Vision and Squint (excluding minor eye defects treated as minor ailments—Group I.)

Defect or disease (1)	Number of defects dealt with			
	Under the Authority's scheme (see note b.) (2)	Submitted to refraction by private practitioner or at hospital, apart from the Authority's scheme (3)	Otherwise (4)	Total (5)
Errors of refraction (including squint) (operations for squint should be recorded separately in the body of the report)	723	26	—	749
Other defect or disease of the eyes (excluding those recorded in Group I.)	21	—	—	21
Total	744	26	—	770

Total number of children for whom spectacles were prescribed—

(a) Under the Authority's scheme 684
(b) Otherwise 26

Total number of children who obtained or received spectacles—

(a) Under the Authority's scheme 569
(b) Otherwise 26

TABLE S 4—Continued
Group III.—Treatment of Defects of Nose and Throat

Number of defects				
Received operative treatment			Received other forms of treatment	Total number treated
Under the Authority's scheme, in clinic or hospital (see note <i>b</i>) (1)	By private practitioner or hospital, apart from the Authority's scheme (2)	Total (3)		
143	4	147	110	257

Group IV.—Dental Defects

(1) Number of children who were—

(a) Inspected by the Dentist—

Routine age groups—aged 5	543
aged 6	1378
aged 7	1493
aged 8	1467
aged 9	1552
aged 10	1705
aged 11	1642
aged 12	573

Special (see note <i>d</i>)	10353
	68

(b) Found to require treatment 7568

(c) Actually treated 7283

(2) Half-days devoted to—Inspection 111
 Treatment 1100

..... 1211

(3) Attendances made by children for treatment 8886

(4) Fillings Permanent teeth..... 4122
 Temporary teeth..... 340

..... 4462

(5) Extractions Permanent teeth..... 1703
 Temporary teeth..... 9666

..... 11369

(6) Administrations of general anæsthetics for extractions —

(7) Other operations Permanent teeth..... 723
 Temporary teeth..... 330

..... 1053

*Group V.—Uncleanliness and Verminous Conditions (see note *f*)*

(i) Average number of visits per school made during the year by Health Nurses 19

(ii) Total number of examinations of children in the schools by Health Nurses 62452

(iii) Number of individual children found unclean 3251

(iv) Number of children cleansed under arrangements made by the Local Education Authority 8

(v) Number of cases in which legal proceedings were taken—

(a) Under the Education Act, 1921 —

(b) Under School Attendance Byelaws —

NOTES ON TABLE S 4

(a) The Table deals with all defects treated during the year, however they were brought to the Authority's notice, *i.e.*, whether by routine inspection, special inspection, or otherwise, during the year in question or previously.

(b) This heading includes all cases that received treatment under definite arrangements or agreements for treatment made by the Local Education Authority and sanctioned by the Board of Education under Section 80 of the Education Act, 1921. Cases, which, after being recommended for treatment or advised to obtain it, actually received treatment by private practitioners, or by means of direct application to hospitals, or by the use of hospital tickets supplied by private persons, etc., are entered under other headings.

(c) The Board request that if any treatment is given for more serious diseases of the ear (*e.g.*, operative treatment in hospital) it should not be recorded here but in the body of the School Medical Officer's Annual Report.

(d) The heading "Specials" in this Table relates to all children inspected by the School Dentist otherwise than in the course of the routine inspection of children in one of the age groups covered by the Authority's approved scheme, namely, to children specially selected by him, or referred by medical officers, parents, teachers, etc., on account of urgency. The number inspected in each age group is separately shown, as well as the total, but under "Specials" only the total number is given.

(e) A statement as to the arrangements made by the Local Education Authority for cleansing verminous children and a record of the cases in which legal proceedings were taken are included in the body of the School Medical Officer's report.

N.B—Groups I—V above cover all the defects for which treatment is normally provided as part of the School Medical Service. The Board request that particulars as to the measures adopted by the Authority for providing treatment for other types of defect (*e.g.*, for orthopædic treatment) or for securing improvement in types of defect which do not fall to be treated under the Authority's own scheme and for which the Authority neither incur expenditure nor accept any responsibility, together with a statement of the effect of the measures taken, should be included in the body of the School Medical Officer's report; such particulars following the headings of Table S 2.

TABLE S 6

Past Infectious Diseases (Elementary School Children)

(1) Children aged 3—7	No. of	
	Cases	Percentage
No Infectious Disease	411	15.9
Measles	1867	72.5
Whooping Cough	1284	49.8
Scarlet Fever	77	2.9
Diphtheria	45	1.7
Chicken Pox	768	29.8
Mumps	341	13.2

(2) Children aged 8—14	No. of	
	Cases	Percentage
No Infectious Disease	191	4.1
Measles	3632	78.8
Whooping Cough	2485	53.9
Scarlet Fever	300	6.5
Diphtheria	139	3.0
Chicken Pox	2008	43.5
Mumps	1272	27.6

Note.—The same child may have had more than one of these diseases

TABLE S 5

Number of children examined at Routine Medical Inspections in the Schools and number found defective in each School

School	Entrants	Intermediates	Leavers	Total ordinary inspections	Parents present	*Number of defective children	Number of defects found	CLASSIFICATION OF DEFECTS											Totals				
								Malnutrition	Skin diseases	Eyes	Ears	Nose and throat	Cervical glands (non-tuberculous)	Defective speech	Teeth	Heart and circulation	Lungs	Tuberculosis (pulmonary)		Tuberculosis (non-pulmonary)	Nervous system	Deformities	Other defects and diseases
Bidston Avenue	106	92	57	255	217	21	21	—	—	10	1	4	—	—	1	—	3	—	—	—	1	1	21
Brassey Street Infants ..	77	84	—	161	150	12	14	—	—	3	3	2	—	—	1	—	1	1	—	—	1	2	14
Catheart Street	105	93	62	260	194	37	37	—	3	11	2	4	—	—	7	3	1	—	—	—	1	5	37
Cole Street	95	67	29	191	163	22	22	1	6	4	1	1	—	—	2	—	2	1	—	—	—	4	22
Gauthy Road	104	80	16	200	167	14	14	—	1	7	—	1	—	—	2	—	1	—	1	1	—	—	14
Laird Street	86	83	62	231	194	37	37	—	1	11	3	7	—	—	7	—	3	—	—	2	—	3	37
Mersey Park	150	108	45	303	251	16	20	—	—	9	1	4	—	—	3	1	1	—	—	—	—	1	20
Mersey Road	69	79	83	231	172	26	27	—	—	9	2	3	—	—	6	3	1	—	—	—	—	3	27
Pilgrim Street	87	80	32	199	156	12	12	—	2	6	—	—	—	—	3	—	—	—	—	—	—	1	12
Price Street	54	39	—	93	80	12	12	—	—	7	—	—	—	—	1	—	3	—	—	1	—	—	12
Rock Ferry	142	123	102	367	275	47	47	—	1	12	3	13	—	—	10	3	1	—	—	1	—	3	47
The Woodlands	80	70	46	196	157	12	12	—	2	5	—	1	—	—	3	1	—	—	—	—	—	—	12
Trinity Street	45	49	—	94	71	18	18	—	—	12	—	—	—	—	4	—	1	—	—	1	—	—	18
Well Lane.....	81	91	91	263	207	16	16	—	—	4	—	5	—	—	2	1	3	—	—	—	—	1	16
Woodchurch Road	166	129	79	374	308	27	28	—	—	6	—	7	—	—	8	2	4	—	—	—	1	—	28
Park Road Temporary	60	39	—	99	77	11	12	—	1	7	—	2	—	—	1	—	—	—	—	—	—	1	12
Cloughton H.C.	68	91	95	254	202	14	18	—	1	8	—	5	—	—	2	1	1	—	—	—	—	—	18

Holy Cross	73	38	—	111	90	17	18	—	1	7	1	2	—	—	—	1	—	—	1	1	1	—	—	—	4	18
Holy Trinity	57	75	29	161	107	12	12	—	—	5	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	12
Our Lady's	110	87	91	288	200	32	37	—	—	12	1	6	—	1	8	2	2	—	—	—	—	—	—	5	37	
Oxton	14	11	4	29	18	7	8	—	—	4	—	1	—	—	—	2	—	—	—	—	—	—	—	1	8	
St. Andrew's	33	20	12	65	60	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	
St. Anne's.....	50	62	74	186	165	38	45	—	1	14	5	2	—	—	8	—	—	—	—	—	—	—	1	14	45	
St. Anne's R.C.	89	66	93	248	173	29	34	—	3	12	1	6	—	—	4	1	4	—	—	—	—	—	—	3	34	
St. Catherine's.....	41	37	47	125	65	16	16	—	—	6	—	3	—	—	3	—	4	—	—	—	—	—	—	—	16	
St. James'	51	35	34	120	94	12	14	—	—	4	2	3	—	—	2	2	—	—	—	—	—	—	1	—	14	
St. John's.....	65	64	84	213	147	18	18	—	—	13	—	2	—	—	2	—	—	—	—	—	—	—	—	1	18	
St. Joseph's	46	31	24	101	78	13	13	1	—	7	—	2	—	—	—	—	2	—	—	—	—	—	1	—	13	
St. Laurence's	132	162	121	415	310	25	25	—	—	13	—	1	—	—	10	1	—	—	—	—	—	—	—	—	25	
St. Luke's.....	70	60	85	215	154	22	24	—	—	4	1	7	—	—	5	—	1	—	—	—	—	—	2	3	24	
St. Paul's	48	26	19	93	63	6	7	—	—	4	—	—	—	—	3	—	—	—	—	—	—	—	—	—	7	
St. Werburgh's.....	90	73	73	236	174	22	24	—	1	13	1	1	—	—	7	—	—	—	—	—	—	—	—	1	24	
Tranmere H.G.	30	44	36	110	92	8	8	—	3	2	2	—	—	—	1	—	—	—	—	—	—	—	—	—	8	
Brassey Street Central ...	—	—	150	150	102	18	18	—	2	10	2	1	1	—	—	1	—	—	—	—	—	—	—	1	18	
Conway Street Central ...	—	—	164	164	68	26	30	—	—	16	—	3	—	—	10	1	—	—	—	—	—	—	—	—	30	
Heningford St. Central ...	—	—	143	143	85	5	5	—	—	3	—	—	—	—	2	—	—	—	—	—	—	—	—	—	5	
Temple Road Central	—	—	136	136	74	10	12	—	—	3	—	4	—	—	3	—	—	—	—	—	—	1	—	1	12	
St. Hugh's Central	—	—	102	102	26	22	27	3	1	13	—	2	—	—	5	—	2	—	—	—	—	—	—	1	27	
Totals.....	2574	2288	2320	7182	5386	713	763	5	30	297	32	106	1	1	144	23	42	3	2	7	10	60	—	763		

* The number of defects found is in excess of the number of defective children, as one child may have several defects.

